DOCUMENT RESUME

ED 036 032 40 EC 004 961

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TIILE A PROGRAM ABSTRACT FCR TRANSLATING INKPRINT INTO

BRAILLE BY COMPUTER.

INSTITUTION AMERICAN PRINTING HOUSE FOR THE BLIND, LOUISVILLE,

KY.

SPONS AGENCY OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

PUE DATE 69

GRANT OEG+2-6061190-1578

NCIE 104P.

EDRS PRICE EDRS PRICE MP-\$0.50 HC-\$5.30

DESCRIPTORS *PRAILLE, COMPUTER PROGRAMS, *EXCEPTIONAL CHILD

SERVICES, TECHNOLOGY, *VISUALLY HANDICAPPED

AESTRACT

A PROGRAM ABSTRACT WHICH CCRRESPONDS TO THE COMPUTER PROGRAM FOR ERAILLE TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND PRESENTS AN APPROACH TO COMPUTER PROCESSING OF INKPRINT INTO BRAILLE INCLUDING INPUT, OUTPUT, STORAGE AREAS, AND PROCESSING STEPS. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM, REQUIRES APPROXIMATELY 9,400 36-BIT WORDS OF STORAGE, AND PROCEEDS AT THE RATE OF ABOUT 12 BRAILLE PAGES PER MINUTE. TABLES AND AN INDEX ARE INCLUDED. (AUTHOR/JM)



P.H.-48 BR-6-1190 OE/BR

A PROGRAM ABSTRACT

FOR

TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER

AMERICAN PRINTING HOUSE FOR THE BLIND
LOUISVILLE, KENTUCKY
1969



A PROGRAM ABSTRACT

FOR

TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER

DATA PROCESSING DEPARTMENT ROBERT L. HAYNES, MANAGER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE OFFICE OF EDUCATION

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WRITTEN BY JOHN R. SIEMS

AMERICAN PRINTING HOUSE FOR THE BLIND LOUISVILLE, KENTUCKY

1969

THIS PROJECT WAS DONE UNDER OFFICE OF EDUCATION GRANT 2-6061190-1578



THE PURPOSE OF THIS PROGRAM ABSTRACT IS TO PRESENT ONE APPROACH TO COMPUTER PROCESSING OF INKPRINT INTO BRAILLE. IN ESSENCE, THE ABSTRACT CORRESPONDS CLOSELY TO THE COMPUTER PROGRAM FOR BRAILLE TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM WHICH IS MADE AVAILABLE WITHOUT CHARGE BY INTERNATIONAL BUSINESS MACHINES AND WHICH IS A PART OF THE BRAILLE PUBLISHING PROCESS AT APH.

ORIGINALLY, THE USE OF THE COMPUTER IN REGULAR BRAILLE PRODUCTION WAS MADE POSSIBLE BY MEANS OF A TRANSLATION PROGRAM WRITTEN FOR THE 704 BY IBM IN COOPERATION WITH APH. THIS PROGRAM IS DESCRIBED IN THE IBM DATA PROCESSING DIVISION PUBLICATION MEA-10 ENTITLED, BRAILLE TRANSLATION SYSTEM FOR THE 704. THE 709 PROGRAM NOW IN USE FOLLOWS SOME OF THE PRINCIPLES OF THE ORIGINAL PROGRAM, ESPECIALLY IN REGARD TO INPUT DATA FORMAT, TABLE ORDER, AND OUTPUT ARRANGEMENT. HOWEVER, IN REGARD TO THE ACTUAL TRANSLATION OF THE TEXT AND EXECUTION OF PAGE FORMAT, THE BASIC CONCEPTS OF THE PRESENT 709 PROGRAM ARE DIFFERENT FROM THOSE OF THE 704 PROGRAM.

ON THE 709, THE BRAILLE TRANSLATION OPERATION, AS IT IS OUTLINED HERE, REQUIRES APPROXIMATELY 9,400 36-BIT WORDS OF STORAGE AND PROCEEDS AT THE RATE OF ABOUT 12 BRAILLE PAGES PER MINUTE.

ALTHOUGH AN EFFORT HAS BEEN MADE TO ACHIEVE ACCURACY IN THIS PRESENTATION, LIABILITY FOR INACCURACIES IS NOT ASSUMED.



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INPUT

THE INKPRINT TEXT TO BE TRANSLATED IS CONTAINED IN A FILE HAVING A RECORD LENGTH OF 72 CHARACTERS. IF LESS THAN THE 72 CHARACTERS OF A RECORD ARE USED FOR TEXT, A MINUS SIGN IS PLACED AFTER THE LAST TEXT CHARACTER IN THE RECORD.

INPUT IS PREPARED USING THE CHARACTER SET OF THE IBM 026 KEYPUNCH. SOME INKPRINT CHARACTERS REQUIRE MORE THAN ONE KEYPUNCH CHARACTER. THE FOLLOWING LIST GIVES THE SYMBOLS WHICH ARE USED.

\$ A	ACCENT
3	AMPERSAND
5 ,	APOSTROPHE
**	ASTERISK
#	CAPITAL
#.	COLON
മര	DA SH
\$DEC	DECIMAL POINT
\$DOL	DOLLAR SIGN
##	DOUBLE CAPITAL
â â â â	DOUBLE DASH
\$\$ I	DOUBLE ITALICS '
	ELLIPSIS
\$ X	EXCLAMATION POINT
a	HYPHEN
\$H	HYPHEN IF WORD MAY NOT BE DIVIDED AT
	END OF LINE
\$N	INKPRINT NUMBER SIGN
\$ I	TTALIC'S .
\$%	LEFT BRACKET
#%	LEFT DOUBLE QUOTE
8.3	LEFT SINGLE QUOTE
\$LR	LETTER SIGN
\$PC	PER CENT .
\$Q	QUESTION MARK
\$11	RIGHT BRACKET
#¤	RIGHT DOUBLE QUOTE
E13	RIGHT SINGLE QUOTE
#•	SEMICOLON
\$ TC	TERMINATE CAPITALS
\$TI	TERMINATE ITALICS
♦ V	VERSE NUMBER



\$1	MACRON
\$ 2	DIAERESIS
\$3	SEMI-DIAERESIS
\$4 .	TILDE
\$ 5	CIRCUMFLEX
\$ 6	SUPERSCRIPT
\$7	UNDERLINE OR MIDDLE BAR
\$ 8	LIGATURED LETTERS
\$ 9	SCHWA
\$11	PRIMARY STRESS
\$12	SECONDARY STRESS
\$13	BREVE
\$21	MIDDLE HYPHEN
\$22	COMPOUND HYPHEN
\$31	DOUBLE DAGGER
\$32	DAGGER
\$33	DITTO MARKS

ALONG WITH THE TEXT, INPUT DATA CONTAINS CONTROL CODES WHICH MAY INDICATE THE INKPRINT FORMAT OR THE DESIRED BRAILLE FORMAT. THE FORMAT CODES, GIVEN NEXT, ARE INSERTED AS NEEDED.

\$LIT FOLLOWED BY A SPACE USE LITERARY FORMAT.

STEX FOLLOWED BY A SPACE USE TEXTBOOK FORMAT.

STEXIL FOLLOWED BY A SPACE
USE TEXTBOOK INTERLINE FORMAT.

\$MAGOD FOLLOWED BY A SPACE
USE MAGAZINE FORMAT NUMBERING ODD PAGES.

\$MAGEV FOLLOWED BY A SPACE
USE MAGAZINE FORMAT NUMBERING EVEN PAGES.

\$BLBRPG FOLLOWED BY A SPACE
LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER.

\$ SOURCE FOLLOWED BY A NUMBER AND A SPACE SOURCE NUMBER OF TEXT.

*TITLE FOLLOWED BY A NUMBER AND A SPACE TITLE NUMBER IDENTIFYING TEXT.

SPGLNGTH FOLLOWED BY A NUMBER AND A SPACE NUMBER OF LINES TO BE PUT ON A BRAILLE PAGE.

*REGLINE FOLLOWED BY A NUMBER AND A SPACE NUMBER OF CELLS IN A FULL BRAILLE LINE.

\$SHLINE FOLLOWED BY A NUMBER AND A SPACE NUMBER OF CELLS FOR A CENTERED LINE.

\$CDINCR FOLLOWED BY A NUMBER AND A SPACE
AMOUNT OF INCREMENT FOR BRAILLE CARD NUMBERS.

\$ VOL FOLLOWED BY A NUMBER AND A SPACEVOLUME NUMBER.

\$BRPG FOLLOWED BY A NUMBER AND A SPACE
BEGIN BRAILLE PAGE HAVING THE NUMBER SPECIFIED.

\$BRLN FOLLOWED BY A NUMBER AND A SPACE' NUMBER OF NEXT BRAILLE LINE.

\$BRCD FOLLOWED BY A NUMBER AND A SPACENUMBER OF NEXT BRAILLE CARD.

\$RGHD FOLLOWED BY A SPACE
BEGINNING OF TITLE FOR RUNNING HEAD.

SERH FOLLOWED BY A SPACE END OF RUNNING HEAD TITLE.

\$CHAP FOLLOWED BY A NUMBER AND A SPACE
BEGIN CHAPTER TITLE. NUMBER REFERS TO NUMBER OF
LINES IN THE TITLE.

٠ ;

*CHAP FOLLOWED BY A SPACE
BEGIN CHAPTER TITLE CONSISTING OF ONE LINE.

\$ECH FOLLOWED BY A SPACEEND CHAPTER TITLE.

SHEAD FOLLOWED BY A NUMBER AND A SPACE
BEGIN HEADING. NUMBER REFERS TO THE NUMBER OF
LINES IN THE HEADING.

\$HEAD FOLLOWED BY A SPACE
BEGIN ONE LINE HEADING.

\$HDEND FOLLOWED BY A SPACE END HEADING.

ERIC

\$PAR FOLLOWED BY A SPACEBEGINNING OF PARAGRAPH.

*BREAK FOLLOWED BY A SPACE
BLANK LINE INDICATING PAUSE OR BREAK IN THOUGHT.

\$SKIP FOLLOWED BY A SPACE
BLANK LINE OTHER THAN PAUSE OR BREAK IN THOUGHT.

\$BREAK* FOLLOWED BY A SPACELINE OF ONE OR MORE ASTERISKS.

\$1PO FOLLOWED BY A SPACE BEGIN POETRY FORMAT.

\$TPO FOLLOWED BY A SPACE END POETRY FORMAT,

\$EL FOLLOWED BY A SPACE END LINE.

\$EP FOLLOWED BY A SPACE END BRAILLE PAGE.

\$EPLATE FOLLOWED BY A SPACE

END BRAILLE PAGE AND GO TO NEXT ODD-NUMBERED PAGE.

\$CTR FOLLOWED BY A SPACE BEGIN CENTERING.

\$TCTR FOLLOWED BY A SPACE END CENTERING.

\$IND FOLLOWED BY A NUMBER AND A SPACE
INDENT THIS LINE. NUMBER INDICATES THE NUMBER OF
SPACES TO BE LEFT BLANK BEFORE BEGINNING TEXT.

SIND FOLLOWED BY A SPACE
BEGIN THIS LINE AT THE LEFT MARGIN.

\$DX FOLLOWED BY A NUMBER AND A SPACE

BEGIN INDEX FORMAT. NUMBER INDICATES THE NUMBER

OF SPACES WHICH ARE TO PRECEDE RUN-OVER LINES.

*DXEND FOLLOWED BY A SPACE END INDEX FORMAT.

SLTRCL FOLLOWED BY A NUMBER AND A SPACE 'S
END OF TEXT PART OF LETTER OF CORRESPONDENCE.
NUMBER REFERS TO THE NUMBER OF LINES IN THE
CLOSING OF THE LETTER.

\$BLOCK FOLLOWED BY A NUMBER AND A SPACE

LEAVE A BLOCK OF BLANK LINES. NUMBER REFERS TO

THE NUMBER OF LINES DESTRED.

\$COL FOLLOWED BY A SPACE
BEGIN ARRANGING MATERIAL IN COLUMNS.

\$COL FOLLOWED BY A NUMBER AND A SPACE
THE FOLLOWING ITEM IS LEFT ALIGNED IN A COLUMN.
THE NUMBER REFERS TO THE NUMBER OF THE COLUMN IN WHICH THE ITEM OCCURS.

\$COLR FOLLOWED BY A NUMBER AND A SPACE
THE FOLLOWING ITEM IS RIGHT ALIGNED IN A COLUMN.
THE NUMBER REFERS TO THE NUMBER OF THE COLUMN IN WHICH THE ITEM OCCURS.

\$ECOL FOLLOWED BY A SPACE END COLUMN FORMAT.

\$DNSP FOLLOWED BY A NUMBER AND A SPACE
DO NOT SEPARATE THE FOLLOWING LINES AT THE END OF
A PAGE. THE NUMBER GIVES THE NUMBER OF LINES
WHICH ARE TO BE KEPT TOGETHER.

\$RMRG FOLLOWED BY A SPACE

ALIGN THE NEXT WORD OR GROUP OF WORDS AT THE RIGHT

MARGIN. THE WORD OR GROUP OF WORDS MUST BE

FOLLOWED BY \$EL.

INSERT LEADER DOTS TO WORD OR NUMBER AT RIGHT MARGIN. THIS SYMBOL IS USED ONLY PRECEDING THE \$RMRG SYMBOL.

\$ALTRMRG FOLLOWED BY A NUMBER AND A SPACE
USE A RIGHT MARGIN WHICH IS SET IN FROM THE NORMAL
RIGHT MARGIN. THE NUMBER REFERS TO THE NUMBER OF
THE LAST CELL TO BE USED IN THE ALTERNATE LENGTH
LINE.

\$ALTRMEND FOLLOWED BY A SPACE END USE OF ALTERNATE RIGHT MARGIN.

\$IG1 FOLLOWED BY A SPACE
BEGIN GRADE 1 TRANSLATION.

\$TG1 FOLLOWED BY A SPACE END GRADE 1 TRANSLATION.

\$CDOTS FOLLOWED BY A NUMBER AND A SPACE
INSERT CENTERED LINE OF DOTS. NUMBER REFERS TO
NUMBER OF DOTS TO BE PLACED IN THE LINE.

SCLNSC FOLLOWED BY A SPACE
INSERT CENTERED COLON LINE.

\$CLNSF FOLLOWED BY A SPACE INSERT FULL LINE OF COLONS.

\$CELL FOLLOWED BY A NUMBER AND A SPACE
BEGIN NEXT WORD IN THE CELL NUMBER SPECIFIED.

\$PG FOLLOWED BY A SPACE, A NUMBER, A PERIOD, AND A SPACE BEGINNING OF NEXT INKPRINT PAGE. NUMBER REFERS TO INKPRINT PAGE NUMBER WHICH MAY BE EITHER ARABIC OR ROMAN.

\$END FOLLOWED BY A SPACE

END OF RUN. THIS SYMBOL SHOULD BE FOLLOWED BY A BLANK RECORD.

THE FIRST RECORDS OF INPUT DATA FOR A PARTICULAR JOB CONTAIN CONTROL CODES SPECIFYING FIRST THE TYPE OF BOOK, SUCH AS LITERARY OR TEXTBOOK, AND THEN TITLE NUMBER, VOLUME NUMBER, LENGTH OF BRAILLE PAGE, BRAILLE LINE LENGTH, BRAILLE PAGE NUMBER, BRAILLE LINE LENGTH, BRAILLE PAGE NUMBER, BRAILLE LINE NUMBER, AND CARD NUMBER INCREMENT. IF A RUNNING HEAD IS TO BE USED IT IS GIVEN ENCLOSED BY THE SYMBOLS FOR BEGINNING AND END OF RUNNING HEAD. PART OR ALL OF THE SPECIFICATIONS MAY BE CHANGED AT A LATER POINT IN THE INPUT IF DESIRED.

1 1

1 1

THE \$END CODE FOR ENDING TRANSLATION IS PLACED AT THE CONCLUSION OF THE TEXT MATERIAL. A BLANK RECORD FOLLOWS THE RECORD WHICH CONTAINS THIS CODE.

OUTPUT

THE RESULT OF TRANSLATION IS A SUCCESSION OF DATA BLOCKS CONTAINING INFORMATION FOR CUTPUT RECORDS. DEPENDING UPON THE TYPE OF OUTPUT DESIRED, DIFFERENT SECTIONS OF THE DATA IN A BLOCK MAY BE TRANSFERRED TO A RECORD OF THE OUTPUT FILE. A BLOCK ALLOWS FOR 72 POSITIONS OF DATA. EACH POSITION CONSISTS OF 16 BINARY DIGITS.

POSITIONS 1 TO 7 OF THE BLOCK AND THE LOW ORDER 4 BITS OF POSITIONS 8 TO 72 CONTAIN INFORMATION FOR BRAILLE CARD IDENTIFICATION. BEGINNING WITH POSITION 8, THE HIGH ORDER 12 BITS OF EACH POSITION REPRESENT EITHER A BRAILLE TEXT CODE OR A CONTROL CODE. THE 8-BIT BRAILLE CCMMUNICATIONS CODE IS IN BITS 5 TO 12. BITS 1 TO 4 SERVE TO DISTINGUISH AMONG BRAILLE CHARACTERS WHICH HAVE THE SAME DOTS BUT DIFFERENT MEANINGS. BRAILLE DATA MAY CONTINUE THROUGH POSITION 72.

IN PUNCHING BRAILLE STEREOGRAPH CARDS, CARD COLUMNS 1 TO 72 ARE USED. THE 72 COLUMNS CCRRESPOND TO THE 72 POSITIONS OF THE DATA BLOCK. INFORMATION FROM THE LOW ORDER 12 BITS OF A POSITION IS PUNCHED INTO A CARD COLUMN.

THE DIAGRAM ON THE NEXT PAGE SHOWS THE SECTIONS OF THE DATA OUTPUT AREA. SECTIONS C AND D PROVIDE DATA FOR OUTPUT PRODUCED FOR THE PURPOSE OF CHECKING TRANSLATION ACCURACY. SECTIONS B, D, AND E ARE USED FOR OUTPUT IN THE FORM OF BRAILLE CARDS. IF ONLY THE BRAILLE COMMUNICATIONS CODE IS DESIRED, IT IS AVAILABLE IN SECTION D.

ERIC

DUTPUT DATA BLOCK

BINARY DIGIT

	1	2	3	4	5	6	7	8	9	10	11	12	13	14 1	5	16
DATA POSI- TION												,			•	
1 . 2 . 3 4 5 6	,	A. NOT USE		• •		. . D <i>i</i>	ATA F	OR E	BRAII	B• LLE (ARD	NUMB	ERS	• •		• •
7 . 8 . 9 .	•	 .: .: .:		•	•	• •	• •	• • • · · ·	• •,		• •		•	. E.	•	•
, 11 .	•	DA FO	•	1 7	• • • ,	C O		BRAII ICATI		CODI	Ē	•		DAT	A	•
13 . 14 . 15 .		DEN FYI RAI SIG	NG LLE		. 8 .FOR- . MAT		6 DOT 6		4 DOT 4	3 DOT 3	2 DO T 2	DOT		CARI IDENI ICAT) []-	
71 . 72 .	•	• •	•	• •	•	C O	• •	• •	• • [NG	• • BRAII	· ·	CARD	· ·	• • s	•	•

12 11 0 1 2 3 4 5 6 7 8 9

STORAGE AREAS

THE PRINCIPAL VARIABLE AND CONSTANT FIELDS EMPLOYED IN PROCESSING ARE LISTED BELOW.

IN THE TRANSLATION PROCEDURE A BRAILLE CHARACTER IS SPECIFIED BY 12 BINARY DIGITS. THE LOW ORDER 8 BITS CONTAIN THE BRAILLE COMMUNICATIONS CODE. THE HIGH ORDER 4 BITS AID IN FURTHER IDENTIFYING THE BRAILLE SIGN. THE 12 BITS ARE REPRESENTED BY A FIVE-DIGIT DECIMAL CODE AS FOLLOWS.

DECIMAL DIGITS	FIRST TWO	THIRD	FOURTH	FIFTH
BINARY DIGITS	1 2 3 4	5 6	7 8 9	10 11 12
BRAILLE COMMUNICATIONS CODE	•	8 7	6 5 4	3 2 1
DOTS OF BRAILLE CELL			6 5 4	3 2 1

STORAGE AREAS FOR BRAILLE DATA, THEREFORE, CONTAIN 12 SIGNIFICANT BITS FOR EACH BRAILLE CHARACTER.

UNLESS OTHERWISE INDICATED, A DIGIT REFERS TO A DECIMAL DIGIT.

NAME

DESCRIPTION

INPUT RECORD

AN AREA FOR STORING AN INPUT RECORD OF 72 CHARACTERS

END OF RECORD CHARACTER

MINUS SIGN

LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT

AN ADDRESS

RECORD

TEXT

AN AREA FOR STORING 200 CHARACTERS OF INPUT TEXT

LOCATION FOR STORING NEXT CHARACTER IN TEXT

AN ADDRESS



NUMBER OF CHARACTERS ADDED TO TWO DIGITS TEXT LOCATION OF FIRST CHARACTER OF AN ADDRESS PRIMARY UNIT LOCATION OF LAST CHARACTER OF AN ADDRESS PRIMARY UNIT FIRST AND SECOND LOOK-UP TWO CHARACTERS CHARACTERS OF PRIMARY UN,I T LOCATION, OF PRIMARY UNIT IN AN ADDRESS BRAILLE TABLE LOCATION OF FIRST CHARACTER OF AN ADDRESS . TEMPORARY UNIT LOCATION OF LAST CHARACTER OF AN ADDRESS . . TEMPORARY UNIT FIRST AND SECOND LOOK-UP TWO CHARACTERS CHARACTERS OF TEMPORARY UNIT AN ADDRESS LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE LOCATION OF FIRST CHARACTER OF AN ADDRESS SECONDARY UNIT LOCATION OF LAST CHARACTER OF AN ADDRESS SECONDARY UNIT FIRST AND SECOND, LOOK-UP TWO CHARACTERS CHARACTERS OF SECONDARY UNIT LOCATION OF SECONDARY UNIT IN AN ADDRESS BRAILLE TABLE BRAILLE TABLE LOCATION AN ADDRESS REFERENCE LOCATION OF CHARACTER AN ADDRESS PRECEDING PRIMARY UNIT LOCATION OF CHARACTER AN ADDRESS FOLLOWING PRIMARY UNIT LOCATION OF NEXT TEXT AN ADDRESS CHARACTER TO BE COMPARED

END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY	A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER
TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT	TWO DIGITS
TYPE OF LAST UNIT BEFORE PRIMARY UNIT	TWO DIGITS
TYPE OF SECONDARY UNIT	TWO DIGITS
LETTER TYPE	01
SPACE TYPE	06
HYPHEN TYPE	05
COMPOSITION SIGN TYPE	04
BEGINNING PUNCTUATION TYPE	02
ENDING PUNCTUATION TYPE	03
APOSTROPHE TYPE	08
DASH TYPE	07 .
NUMBER TYPE	11
BY INTO TO TYPE	10
LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE	AN ADDRESS
DUMMY BRAILLE TABLE ENTRY	AN AREA OF THE SAME SIZE AS AN ENTRY IN THE BRAILLE TABLE
CONTRACTION IDENTIFICATION NUMBER	THREE DIGITS
LOCATION OF EXCEPTION TABLE ENTRY	AN ADDRESS
LOCATION OF PRECEDING CHARACTERS SUBSECTION	AN ADDRESS
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AN ADDRESS



END MARK IN EXCEPTION TABLE	A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER
LOCATION OF NEXT EXCEPTION TABLE CHARACTER	AN ADDRESS
FORMAT SYMBOL FACTOR	SEVEN DIGITS
CENTERING SHIFT FACTOR	TWO DIGITS
INDEX AMOUNT	TWO DIGITS
INDEX AMOUNT REFERENCE	TWO DIGITS
INDENT FACTOR	TWO DIGITS
RIGHT MARGIN SHIFT FACTOR	TWO DIGITS
RUNNING HEAD SHIFT FACTOR	TWO DIGITS
LINES REQUIRED BEFORE END OF PAGE	TWO DIGITS
QUOTE LEVEL	ONE DIGIT
EFFECTIVE COLUMN SIGNAL CODE	AN AREA FOR STORING 1 BRAILLE CHARACTER
NEXT COLUMN SIGNAL CODE	AN AREA FOR STORING I BRAILLE CHARACTER
COLUMN NUMBER	TWO DIGITS
TEMPORARY COLUMN WIDTH	TWO DIGITS
PREVIOUS LINE LENGTH	TWO DIGITS
COLUMN LINE	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE	AN ADDRESS
COLUMN ADJUSTMENT FACTOR	TWO DIGITS
BRAILLE WORD	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD	AN ADDRESS

TWO DIGITS NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD AN AREA FOR STORING 50 BRAILLE BRAILLE LINE **CHARACT ERS** AN ADDRESS LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE TWO DIGITS NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE AN AREA FOR STORING 50 BRAILLE RUNNING HEAD CHARACT ERS AN ADDRESS LOCATION FOR STORING NEXT BRAILLE CHARACTER IN RUNNING HEAD NUMBER OF BRAILLE CHARACTERS TWO DIGITS IN RUNNING HEAD AN AREA FOR STORING 50 BRAILLE STORED BRAILLE LINE CHARACT ERS AN ADDRESS LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE LINE AN AREA FOR STORING 7 BRAILLE BRAILLE PAGE NUMBER TRANSLATED CHARACTERS TWO DIGITS NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER ; TRANSLATED AN AREA FOR STORING 32 BRAILLE INKPRINT PAGE NUMBER CHARACTERS TRANSLATED AN ADDRESS LOCATION FOR STORING NEXT BRAILLE CHARACTER IN INKPRINT PAGE NUMBER * TRANSLATED TWO DIGITS NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED



THREE DIGITS

NUMBER OF BRAILLE CHARACTERS TWO DIGITS

SOURCE NUMBER

TITLE NUMBER FOUR DIGITS BRAILLE VOLUME NUMBER TWO DIGITS BRAILLE PAGE NUMBER FIVE DIGITS BRAILLE PAGE NUMBER REFERENCE FIVE DIGITS FOR NEW INKPRINT PAGE FIVE DIGITS ... BRAILLE LINE NUMBER BRAILLE CARD NUMBER SEVEN DIGITS INCREMENT FOR BRAILLE CARD FOUR DIGITS NUMBER MAXIMUM NUMBER OF BRAILLE TWO DIGITS CHARACTERS IN FULL LINE EFFECTIVE MAXIMUM NUMBER OF TWO DIGITS BRAILLE CHARACTERS IN BRAILLE LINE MAXIMUM NUMBER OF BRAILLE TWO DIGITS CHARACTERS IN CENTERED LINE MAXIMUM NUMBER OF BRAILLE TWO DIGITS CHARACTERS IN ALTERNATE LINE MAXIMUM NUMBER OF BRAILLE TWO DIGITS CHARACTERS IN NEXT LINE MAXIMUM NUMBER OF LINES FOR FIVE DIGITS BRAILLE PAGE EFFECTIVE MAXIMUM NUMBER OF FIVE DIGITS LINES FOR BRAILLE PAGE FIVE DIGITS DECIMAL NUMBER AN AREA OF 10 POSITIONS, EACH 4-BIT DIGIT LIST PUSITION HAVING 4 BINARY DIGITS LOCATION OF NEXT CODE TO BE AN ADDRESS ADDED TO OUTPUT AN AREA OF 72 POSITIONS, EACH OUTPUT DATA POSITION HAVING 16 BINARY

1 ;

DIGITS

AN ADDRESS LOCATION OF NEXT POSITION IN DUTPUT DATA TWO BRAILLE CHARACTERS END OF PAGE CODES 00303 00000 SEVEN BRAILLE CHARACTERS DATA FOR INTERLINE 02300 02300 02300 02300 02300 00201 00000 BRAILLE END CHARACTER 00000 CODE FOR NUMBER SIGN 04074 CODE FOR LETTER SIGN 14060 12120 CODE FOR DOT 5 06044 CODE FOR DOTS 3 AND 6 CODE FOR SPACE 02300 CODE FOR HYPHEN 04044 CODE FOR SPECIAL SPACE 06300 CODE FOR NUMBER HYPHEN 12044 BIG NUMBER HYPHEN 10044 12102 CODE FOR NUMBER COMMA CODE FOR CAPITAL 02140 06162 CODE FOR PERIOD 10022 CODE FOR COLON 06024 CODE FOR ASTERISK 04101 CODE FOR 1 02101 CODE FOR A 12157 CODE FOR UNSPACED AND CODE FOR B 02003 12003 CODE FOR SPECIAL B 04006 CODE FOR BE

CODE FOR BY

12164

CODE FOR SPECIAL C	12011
CODE FOR COM	02044
CODE FOR SPECIAL EN	12042
CODE FOR ENOUGH	04042
CODE FOR UNSPACED FOR	12077
CODE FOR SPECIAL H	14123
CODE FOR HIS	02146
CODE FOR SPECIAL I	12012
CODE FOR IN	02024
CODE FOR IN OF INTO	00024
CODE FOR O	02125
CODE FOR UNSPACED OF	12167
CODE FOR T	02036
CODE FOR TO	12126
CODE FOR TO OF INTO	14126
CODE FOR SPECIAL W	12072
CODE FOR WAS	04164
CODE FOR WERE	04066
CODE FOR UNSPACED WITH	12176
CODE FOR Y	02175
RIGHT MARGIN SIGNAL CODE	04300
COLUMN LEFT ALIGN SIGNAL CODE	08300
COLUMN RIGHT ALIGN SIGNAL CODE	10300
END OF LINE CODE	00201
END OF CARD CODE	00204
TEXTBOOK FORMAT INDICATOR	A BINARY DIGIT
INTERLINE FORMAT INDICATOR	A BINARY DIGIT

MAGAZINE FORMAT NUMBERED ODD INDICATOR	A BINARY DIGIT
MAGAZINE FORMAT NUMBERED EVEN INDICATOR	A BINARY DIGIT
LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR	A BINARY DIGIT
INSERT RUNNING HEAD INDICATOR	A BINARY DIGIT
INSERT BRAILLE PAGE NUMBER INDICATOR	A BINARY DIGIT
INSERT INKPRINT PAGE NUMBER INDICATOR	A BINARY DIGIT
NEW LINE INDICATOR	A BINARY DIGIT
BY INTO TO INDICATOR -	A BINARY DIGIT
NUMBER HYPHEN INDICATOR	A BINARY DIGIT
CENTERING INDICATOR	A BINARY DIGIT
INDEX FORMAT INDICATOR - '	A BINARY DIGIT
ALIGN RIGHT MARGIN INDICATOR	A BINARY DIGIT
INSERT LEADER DOTS INDICATOR	A BINARY DIGIT
ALTERNATE RIGHT MARGIN INDICATOR	A BINARY DIGIT
INSERT INKPRINT PAGE LINE INDICATOR	A BINARY DIGIT
COLUMN FIRST LINE INDICATOR	A BINARY DIGIT
COLUMN RIGHT ALIGN INDICATOR	A BINARY DIGIT
LEVEL 2 CORRESPONDING QUOTES USED INDICATOR	A BINARY DIGIT
LEVEL 2 INVERTED QUOTES USED INDICATOR	A BINARY DIGIT
GRADE 1 INDICATOR	A BINARY DIGIT
ADD TO RUNNING HEAD INDICATOR	A BINARY DIGIT
ADD TO INKPRINT PAGE NUMBER INDICATOR	A BINARY DIGIT

PROCESSING STEPS

IN THE STATEMENTS WHICH FOLLOW, NAMES OF ROUTINES AND NAMES OF THE PRINCIPAL STORAGE AREAS ARE ENCLOSED BY HYPHENS.

MAIN PROGRAM

- STEP 1 EXECUTE -INITIALIZE-
- STEP 2 EXECUTE -GET NEXT PRIMARY UNIT-
- STEP 3 GO TO -PERFORM OPERATION-
- STEP 4 EXECUTE -GET ALTERNATE UNIT-
- STEP 5 GO TO -PERFORM OPERATION-
- STEP 6 EXECUTE -ADD TO BRAILLE WORD-
- STEP 7 GO TO STEP 2

INITIALIZE

EXECUTE -INITIALIZE TEXT AREA-EXECUTE -CLEAR OUTPUT DATA-EXECUTE -SET BEGINNING STATUS-EXIT

INITIALIZE TEXT AREA

SET -LOCATION FOR STORING NEXT CHARACTER IN TEXT- EQUAL TO LOCATION OF 3RD CHARACTER IN -TEXT-

SET -LOCATION OF LAST CHARACTER OF PRIMARY JNIT- EQUAL TO LOCATION OF 2ND CHARACTER IN -TEXT-

MOVE SPACES TO FIRST TWO CHARACTERS IN -TEXT-

FROM -TABLE OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE-, GET THE LOCATION OF THE BRAILLE TABLE ENTRY FOR SPACE AND STORE THIS LOCATION IN -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-

CLEAR -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-STORE -SPACE TYPE- IN -TYPE OF LAST UNIT BEFORE PRIMARY UNIT-

SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD- EQUAL TO LOCATION OF HYPOTHETICAL 73RD CHARACTER OF -INPUT RECORD-

EXIT

SET BEGINNING STATUS

- STORE 1 IN -BRAILLE PAGE NUMBER-
- STORE 1 IN -BRAILLE LINE NUMBER-
- EYECUTE -TRANSLATE BRAILLE PAGE NUMBER-
- STORE -CODE FOR NUMBER SIGN-, -CODE FOR 1-, AND -BRAILLE END CHARACTER- IN FIRST THREE POSITIONS OF -INXPRINT PAGE NUMBER TRANSLATED-
- STORE 2 IN -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED-
- SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -BRAILLE LINE-
- SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -BRAILLE WORD-
- MOVE -BRAILLE END CHARACTER- TO FIRST BRAILLE CHARACTER OF -BRAILLE LINE- AND TO FIRST BRAILLE CHARACTER OF -BRAILLE WORD-
- STORE ZERO IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
- STORE 25 IN -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-AND IN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-
- STORE 38 IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS I: BRAILLE LINE-
- STORE 32 IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-
- EXECUTE -RESET GENERAL FORMAT INDICATORS-
- RESET -CENTERING INDICATOR-, -ALTERNATE RIGHT MARGIN INDICATOR-, -INSERT BRAILLE PAGE NUMBER INDICATOR-, AND -INSERT INKPRINT PAGE NUMBER INDICATOR-
- RESET -ALIGN RIGHT MARGIN INDICATOR-, -INSERT LEADER DOTS INDICATOR-, -INSERT INKPRINT PAGE LINE INDICATOR-, -BY INTO TO INDICATOR-, -INDEX FORMAT INDICATOR-, AND -NUMBER HYPHEN INDICATOR-
- RESET -ADD TO RUNNING HEAD INDICATOR-, -ADD TO INKPRINT PAGE NUMBER INDICATOR-, -GRADE 1 INDICATOR-, -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, AND -LEVEL 2 INVERTED QUOTES USED INDICATOR-
- SET -INSERT RUNNING HEAD INDICATOR- AND -NEW LINE INDICATOR-
- MUVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
- STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER
 OF -RUNNING HEAD-
- MOVE ZERO TO -QUOTE LEVEL-
- STORE 1 IN -SOURCE NUMBER-, -BRAILLE VOLUME NUMBER-, AND -TITLE NUMBER-
- STORE 10 IN -BRAILLE CARD NUMBER- AND IN -INCREMENT FOR BRAILLE CARD NUMBER-

EXIT

GET NEXT PRIMARY UNIT

MOVE -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- TO -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT-

GET - TYPE OF LAST UNIT BEFORE PRIMARY UNIT - FROM RIGHT END TYPE IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT

SET -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- EQUAL TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF PRIMARY UNIT

IF -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- IS THE SAME AS -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-, GO TO STEP B

EXECUTE -ADD TO TEXT-

MOVE -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- TO -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- AND EXECUTE -GET TRANSLATION UNIT-

GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT-, -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-, AND -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM CORRESPONDING TEMPORARY UNIT DATA AND GO TO STEP D

STEP B GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT-AND -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- FROM CORRESPONDING SECONDARY UNIT DATA

EXECUTE -ADD TO TEXT-

DERIVE -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- PLUS -LOCATION OF LAST CHARACTER OF SECONDARY UNIT- MINUS -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-

STEP D CLEAR -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-

GET TRANSLATION UNIT

MOVE FIRST CHARACTER OF TEMPORARY UNIT AND THE TEXT CHARACTER WHICH FOLLOWS IT TO -FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY UNIT-

EXECUTE -TWO LETTER SEARCH-

IF -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- HAS BEEN CLEARED, EXECUTE -ONE LETTER SEARCH- AND GO TO EXIT EXECUTE -GET MATCHING ENTRY- EXIT

TWO LETTER SEARCH

ERIC

SEARCH -BRAILLE TABLE- FOR ENTRY WHOSE FIRST TWO CHARACTERS EQUAL -FIRST AND SECOND LOOK-JP CHARACTERS OF TEMPORARY UNIT-

IF NO MATCHING ENTRY, CLEAR -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- AND GO TO EXIT

IF MATCHING ENTRY, STEP BACK IN TABLE TO LOCATE FIRST MATCHING ENTRY, AND SAVE LOCATION IN -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE-EXIT

ONE LETTER SEARCH

GET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE—BY
LOOKING UP FIRST CHARACTER OF TEMPORARY JNIT IN -TABLE
OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE—
SET -LOCATION OF LAST CHARACTER OF TEMPORARY UNIT—EQUAL
TO -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT—
MOVE -END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY—
TO SECOND LOOK-UP CHARACTER OF TEMPORARY JNIT
EXIT

GET MATCHING ENTRY

- STEP B IF FIRST TWO CHARACTERS OF BRAILLE TABLE ENTRY SPECIFIED BY -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- DO NOT MATCH -FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY UNIT-, EXECUTE -ONE LETTER SEARCH- AND GO TO EXIT
 - COMPARE INKPRINT CHARACTERS OF BRAILLE TABLE ENTRY WITH CHARACTERS OF TEXT BEGINNING WITH FIRST CHARACTER OF TEMPORARY UNIT
 - IF SUCCESSIVE CHARACTERS IN BRAILLE TABLE ENTRY DO NOT MATCH CHARACTERS OF TEXT, ADVANCE -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- BY ONE ENTRY AND GO TO STEP B
 - IF CHARACTERS MATCH UNTIL -END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY- IS ENCOUNTERED, SET -LOCATION OF LAST CHARACTER OF TEMPORARY UNIT- EQUAL TO LOCATION OF LAST MATCHING TEXT CHARACTER

EXIT

ERIC

ADD TO TEXT

IF -LOCATION OF FIRST CHARACTER OF PRIMARY JNIT- HAS ADVANCED PAST THE 168TH POSITION OF -TEXT-, MOVE CHARACTERS 149 TO 200 TO POSITIONS 1 TO 52 OF -TEXT-, DECREASING -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- AND -LOCATION FOR STORING NEXT CHARACTER IN TEXT- BY 148 CHARACTER LENGTHS

IF -LOCATION FOR STORING NEXT CHARACTER IN TEXT- MINUS -LOCATION OF FIRST CHARACTER OF PRIMARY JNIT- IS GREATER THAN 29, GB TO EXIT

STORE ZERO IN -NUMBER OF CHARACTERS ADDED TO TEXT-

STEP D IF -NUMBER OF CHARACTERS ADDED TO TEXT- IS GREATER THAN 39, OR IF -LOCATION FOR STORING NEXT CHARACTER IN TEXT- IS GREATER THAN LOCATION OF 200TH CHARACTER OF -TEXT-, GO TO EXIT

IF NEXT CHARACTER TO BE MOVED FROM -INPUT RECORD- IS -END OF RECORD CHARACTER-, OR IF -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD- IS GREATER THAN LOCATION OF 72ND CHARACTER OF -INPUT RECORD-, GO TO STEP F

MOVE CHARACTER TO -TEXT- FROM -INPUT RECORD- UPDATING -LOCATION FOR STORING NEXT CHARACTER IN TEXT- AND -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD- AND INCREASING BY 1 -NUMBER OF CHARACTERS ADDED TO TEXT-

GO TO STEP D

STEP F EXECUTE -READ INPUT-

SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD- EQUAL TO LOCATION OF FIRST CHARACTER OF -INPUT RECORD-

GO TO STEP D

EXIT

READ INPUT

READ DATA FROM INKPRINT INPUT FILE TO -INPUT RECORD-EXIT

GET ALTERNATE UNIT

GET -FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY UNIT- AND -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- FROM CORRESPONDING PRIMARY UNIT DATA

SET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- EQUAL TO LOCATION OF NEXT ENTRY AFTER PRIMARY UNIT ENTRY EXECUTE -GET MATCHING ENTRY-

GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT-, -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-, AND -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM CORRESPONDING TEMPORARY UNIT DATA

EXIT

PERFORM OPERATION

GET OPERATION NUMBER FROM BRAILLE TABLE ENTRY FOR PRIMARY UNIT

GO TO ROUTINE CORRESPONDING TO OPERATION NUMBER



DPERATION O ABSOLUTE UNIT
_GO TO -MAIN PROGRAM- STEP 6

OPERATION 1 GENERAL CONTRACTION
GO TO -CHECK EXCEPTIONS-

DPERATION' 2 ONLY INDIVIDUAL WORD

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4

EXECUTE -GET SECONDARY UNIT-

IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4

GO TO -CHECK EXCEPTIONS-

OPERATION' 3 NON-BEGINNING CONTRACTION

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-

IF -TYPE OF LAST UNIT BEFCRE PRIMARY UNIT- IS -APOSTROPHE TYPE-, GO TO STEP B

GO TO -MAIN PROGRAM- STEP 🎾

STEP B IF - TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-

GO TO -MAIN PROGRAM- STEP 4

OPERATION 4 NOT WORD BY ITSELF

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO' TO -CHECK EXCEPTIONS-

EXECUTE -GET SECONDARY UNIT-

IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN
TYPE- OR -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-

IF -TYPE OF SECONDARY UNIT- IS -HYPHEN TYPE- OR -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-

GO TO -MAIN PROGRAM- STEP 4

OPERATION 6 BY, INTO, TO

ERIC

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER

TYPE- OR -HYPHEN TYPE-, GO TO -MAIN PROGRAM- STEP 4

EXECUTE -GET SECONDARY UNIT-

IF - TYPE OF SECONDARY UNIT- IS -LETTER TYPE- OR - NUMBER TYPE-, GO TO - CHECK EXCEPTIONS-

IF -TYPE OF SECONDARY UNIT- IS -COMPOSITION SIGN TYPE-AND -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS NOT -COMPOSITION SIGN TYPE-, GO TO -CHECK EXCEPTIONS-

GO TO -MAIN PROGRAM- STEP 4

OPERATION 7 INDIVIDUAL WORD NOT PUNCTUATED IF - TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -SPACE TYPE-, GO TO -CHECK EXCEPTIONS-IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -COMPOSITION SIGN TYPE- AND -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -SPACE TYPE-, GO TO -CHECK EXCEPTIONS-GO TO -MAIN PROGRAM- STEP 4 OPERATION 8 BE IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4 EXECUTE -GET SECONDARY UNIT-IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-GO TO -MAIN PROGRAM- STEP 4 OPERATION 9 IN IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-EXECUTE -GET SECONDARY UNIT-IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE- OR -NUMBER TYPE-, GO TO -CHECK EXCEPTIONS-IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -APOSTROPHE TYPE- AND IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-GO TO -MAIN PROGRAM- STEP 4

DPERATION 10 BEGINNING CONTRACTION ONLY

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4

GO TO -CHECK EXCEPTIONS-

OPERATION 11 INTERIOR CONTRACTION

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO STEP B

_GO TO -MAIN PROGRAM- STEP 4
STEP B EXECUTE -GET SECONDARY UNIT-

IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-

GO TO -MAIN PROGRAM-, STEP 4

OPERATION 12 FOR, OF, WITH, AND

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNI: - IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4
GO TO -CHECK EXCEPTIONS-



OPERATION 14 DASH

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -BEGINNING PUNCTUATION TYPE-, GO TO -MAIN PROGRAM- STEP 4

EXECUTE -GET SECONDARY UNIT-

IF -TYPE OF SECONDARY UNIT- IS -ENDING PUNCTUATION TYPE-, GO TO -MAIN PROGRAM- STEP 4

EXECUTE -ADD WORD TO BRAILLE LINE-

GO TO -MAIN PROGRAM- STEP 6

OPERATION 16 LOWER SIGN WORDS NOT CONTRACTED

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-, GO TO STEP D

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -COMPOSITION SIGN TYPE- GO TO STEP B

GO TO -MAIN PROGRAM- STEP 4

STEP B IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-, GO TO STEP D

GO TO -MAIN PROGRAM- STEP 4

STEP D IF -GRADE 1 INDICATOR- IS ON, GO TO -MAIN PROGRAM- STEP 4
GO TO -MAIN PROGRAM- STEP 6

OPERATION 17 APOSTROPHE

EXECUTE -GET SECONDARY UNIT-

IF - TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 4

GO TO -MAIN PROGRAM- STEP 6

OPERATION 18 ALPHABETIC COMMA

IF THE THREE CHARACTERS IN -TEXT- PRECEDING FIRST CHARACTER OF PRIMARY UNIT_ ARE NUMBERS. GO TO -MAIN PROGRAM- STEP 4

GO TO -MAIN PROGRAM- STEP 6

OPERATION 19 ALPHABETIC SLASH

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 4

GO TO -MAIN PROGRAM- STEP 6

OPERATION 20 NUMBER

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 6

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -ENDING PUNCTUATION TYPE-, GO TO STEP B

GO TO -MAIN PROGRAM- STEP 4

STEP B IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 6

GO TO -MAIN PROGRAM- STEP 4



OPERATION 21 ALPHABETIC HYPHEN

IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER TYPE-, GO TO STEP B

GO TO -MAIN PROGRAM- STEP 6

STEP B EXECUTE -GET SECONDARY UNIT-

IF -TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 4

GO TO -MAIN PROGRAM- STEP 6

OPERATION 22 NUMBER HYPHEN

SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT-

STEP B INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-BY LENGTH OF ONE CHARACTER

IF NEXT TEXT CHARACTER IS A NUMBER. GO TO STEP B

IF NEXT TEXT CHARACTER IS SLASH, GO TO -MAIN PROGRAM-STEP 4

GO TO-MAIN PROGRAM- STEP 6

OPERATION 24 LEFT DOUBLE QUOTE

IF -QUOTE LEVEL- IS O OR 1, SET -QUOTE LEVEL- TO 1 AND GO TO -USE CORRESPONDING QUOTES-

IF -QUOTE LEVEL- IS 2 OR 3, SET -QUOTE LEVEL- TO 3 AND GO TO -USE CORRESPONDING QUOTES-

IF -QUOTE LEVEL- IS 4, 5, OR 6, SET -QUOTE LEVEL- TO 5, RESET -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, SET -LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO -INVERT QUOTES-

OPERATION 25 LEFT SINGLE QUOTE

IF -QUOTE LEVEL- IS 0, SET -QUOTE LEVEL- TO 4 AND GO TO -INVERT QUOTES-

IF -QUOTE LEVEL- IS 1, 2, OR 3, SET -QUOTE LEVEL- TO 2, RESET -LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- AND GO TO -USE CORRESPONDING QUOTES-

IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 4 AND GO TO -INVERT QUOTES-

IF -QUOTE LEVEL- IS 5 OR 6, SET -QUOTE LEVEL- TO 6 AND GO TO -INVERT QUOTES-

OPERATION 26 RIGHT SINGLE QUOTE

- IF -QUOTE LEVEL- IS 0, GO TO STEP B
- IF -QUOTE LEVEL- IS 1, SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING QUOTES-
- IF -QUOTE LEVEL- 1S 2, SET -QUOTE LEVEL- TO 1 AND GO TO -USE CORRESPONDING QUOTES-
- IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING QUOTES-
- IF -QUOTE LEVEL- IS 4 OR 5, SET -QUOTE LEVEL- TO 0 AND GO TO -INVERT QUOTES-
- IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 5, RESET -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, SET -LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO -INVERT QUOTES-
- STEP B IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS ON, SET -QUOTE LEVEL- TO 1 AND GO TO -USE CORRESPONDING QUOTES-
 - IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS OFF, SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING QUOTES-

OPERATION 27 RIGHT DOUBLE QUOTE

- IF -QUOTE LEVEL- IS 0, GO TO STEP B
- IF -QUOTE LEVEL- IS 1 OR 2, SET -QUOTE LEVEL- TO 0 AND GD TO -USE CORRESPONDING QUOTES-
- IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 2, RESET
 -LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET -LEVEL 2
 CORRESPONDING QUOTES USED INDICATOR- AND GO TO -USE
 CORRESPONDING QUOTES-
 - IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 0 AND GO TO -INVERT QUOTES-
 - IF -QUOTE LEVEL- IS 5, SET -QUOTE LEVEL- TO 4 AND GO TO -INVERT QUOTES-
 - IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 0 AND GO TO -INVERT QUOTES-
- STEP B IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS ON, SET -QUOTE LEVEL- TO 4 AND GO TO -INVERT QUOTES-
 - IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS OFF, SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING QUOTES-

OPERATION 29 COMPOSITION SIGN

- IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS
 -COMPOSITION SIGN TYPE-, MOVE -TYPE OF NEXT TO THE
 LAST UNIT BEFORE PRIMARY UNIT- TO -TYPE OF LAST UNIT
 BEFORE PRIMARY UNIT-
- GO TO -MAIN PROGRAM- STEP 6

ERIC

GET SECONDARY UNIT

SET -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- EQUAL TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF PRIMARY UNIT

EXECUTE -GET TRANSLATION UNIT-

TRANSFER TEMPORARY UNIT DATA TO -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-, -LOCATION OF LAST CHARACTER OF SECONDARY UNIT-, -LOCATION OF SECONDARY UNIT IN BRAILLE TABLE-, AND -FIRST AND SECOND LOCK-UP CHARACTERS OF SECONDARY UNIT-

MOVE LEFT END TYPE FROM BRAILLE TABLE ENTRY FOR SECONDARY UNIT TO -TYPE OF SECONDARY UNIT-

USE CORRESPONDING QUOTES

GO TO -MAIN PROGRAM- STEP 6

INVERT QUOTES

GO TO -MAIN PROGRAM- STEP 4

CHECK EXCEPTIONS

IF -GRADE 1 INDICATOR- IS ON, GO TO -MAIN PROGRAM- STEP 4
GET -CONTRACTION IDENTIFICATION NUMBER- FROM BRAILLE
TABLE ENTRY FOR PRIMARY UNIT

LOOK UP -CONTRACTION, IDENTIFICATION NUMBER- IN -TABLE OF EXCEPTION TABLE LOCATIONS- AND GET -LOCATION OF PRECEDING CHARACTERS SUBSECTION- AND -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION-

IF -LOCATION OF PRECEDING CHARACTERS SUBSECTIONS- IS ZERO, GO TO STEP N

SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO -LOCATION OF PRECEDING CHARACTERS SUBSECTION-

SET -LOCATION OF CHARACTER PRECEDING PRIMARY UNIT- EQUAL TO -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- MINUS ONE CHARACTER LENGTH

STEP B IF ENTRY LENGTH IN EXCEPTION TABLE ENTRY IS ZERO, GO TO STEP N

IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY EQUALS CHARACTER PRECEDING PRIMARY UNIT, GO TO STEP D

IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY IS GREATER THAN CHARACTER PRECEDING PRIMARY UNIT, GO TO STEP N

INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY LENGTH GIVEN, IN EXCEPTION TABLE ENTRY

GO TO STEP B

STEP D SET -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- EQUAL TO LOCATION OF SECOND INKPRINT CHARACTER IN EXCEPTION TABLE ENTRY

SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-EQUAL TO -LOCATION OF CHARACTER PRECEDING PRIMARY UNIT- MINUS ONE CHARACTER LENGTH



STEP F IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN
EXCEPTION TABLE-, GC TO STEP J
IF EXCEPTION TABLE CHARACTER DOES NOT EQUAL TEXT
CHARACTER, GO TO STEP H
DECREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPAREDBY LENGTH OF CNE CHARACTER
INCREASE -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY
ONE CHARACTER LENGTH

GO TO STEP F
INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY

LENGTH GIVEN IN EXCEPTION TABLE ENTRY

STEP H

ERIC

STEP J SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT-

STEP L INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-AND -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY ONE CHARACTER LENGTH

IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN EXCEPTION TABLE-, GO TO STEP X

IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO STEP L

GO TO STEP H

STEP N IF -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION- IS ZERO, GO TO STEP Z

SET -LOCATION OF CHARACTER FOLLOWING PRIMARY UNIT- EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- PLUS LENGTH OF ONE CHARACTER

SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION-

STEP P IF ENTRY LENGTH IN EXCEPTION TABLE ENTRY IS ZERO, GO TO

IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY EQUALS CHARACTER FOLLOWING PRIMARY UNIT, GO TO STEP T

IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY IS GREATER THAN CHARACTER FOLLOWING PRIMARY UNIT, GO TO STEP Z

STEP R INCREASE -LOCATION OF EXCEPTION TABLE ENTRY BY ENTRY

LENGTH GIVEN IN EXCEPTION TABLE ENTRY

GO TO STEP P

STEP T SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-EQUAL TO -LOCATION OF CHARACTER FOLLOWING PRIMARY UNIT-

SET -LOCATION OF NEXT' EXCEPTION TABLE CHARACTER- EQUAL TO LOCATION OF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY

- STEP V INCREASE -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY LENGTH OF ONE CHARACTER
 - IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN EXCEPTION TABLE-, GO TO STEP X
 - INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-BY LENGTH OF ONE CHARACTER
 - IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO STEP V
 - GO TO STEP R
- STEP X IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS MINUS SIGN, GO TO -MAIN PROGRAM- STEP 4
 - IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS PLUS SIGN, GO TO -MAIN PROGRAM- STEP 6
- STEP Z GO TO -MAIN PROGRAM- STEP 6

ADD TO BRAILLE WORD

- STEP B IF -ADD TO RUNNING HEAD INDICATOR- IS ON. GO TO STEP N
 - IF -ADD TO INKPRINT PAGE NUMBER INDICATOR- IS ON, GO TO STEP R
 - SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT
 - IF -NEW LINE INDICATOR- IS ON, GO TO STEP M
- STEP D IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP G
- STEP E IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR HYPHEN-, GO TO STEP J
 - IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR SPACE-, GO TO STEP H
 - IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR TO OF INTO-, OR -CODE FOR BY-, OR -CODE FOR TO-, GO TO STEP L
 - IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR UNSPACED WITH-, OR -CODE FOR UNSPACED OF-, OR -CODE FOR UNSPACED FOR-, GO TO STEP J
 - IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR NUMBER COMMA- OR -CODE FOR NUMBER HYPHEN-, GO TO STEP I
- STEP F ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE WORD-
 - INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1
 - INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- BY LENGTH OF ONE BRAILLE CHARACTER
 - IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP D
 - PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER ADDED TO -BRAILLE WORD-
 - EXECUTE -ADD WORD TO BRAILLE LINE-GO TO STEP D

- STEP G PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER ADDED TO -BRAILLE WORDGO TO STEP V
- STEP H IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS
 -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS
 -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
 BRAILLE LINE-, GO TO STEP K
- STEP J ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE WORD-
 - INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1
- STEP K PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
 CHARACTER ADDED TO -BRAILLE WORDEXECUTE -ADD WORD TO BRAILLE LINEGOT TO STEP V
- STEP L IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS 1
 IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, SET -BY INTO TO INDICATOR-
- GU TO STEP F
 STEP M IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE
 END CHARACTER-, GO TO STEP V'
 - IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR SPACE-, GO TO STEP V
 - IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE -INSERT INKPRINT PAGE LINE- AND GO TO STEP B
 - IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD- AND GO TO STEP B
 RESET -NEW LINE INDICATOR-

GO TO STEP E

- STEP N SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT
- STEP P IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP Q
 - ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -RUNNING HEAD-
 - INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN RUNNING HEAD- BY LENGTH OF ONE BRAILLE CHARACTER
 - INCREASE -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-

GO TO STEP P

- STEP Q PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
 CHARACTER STORED IN RUNNING HEAD
 GD TO STEP V
- STEP R SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT

STEP S IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP T

IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR PERIOD-, GO TO STEP U

ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -INSPRINT PAGE NUMBER TRANSLATED-

INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE
TABLE- AND -LOCATION FOR STORING NEXT BRAILLE
CHARACTER IN INKPRINT PAGE NUMBER TRANSLATED- BY
LENGTH OF ONE BRAILLE CHARACTER

INCREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- BY 1 GO TO STEP S

STEP T PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
CHARACTER STORED IN -INKPRINT PAGE NUMBER TRANSLATEDGO TO STEP V

STEP U RESET -ADD TO INKPRINT PAGE NUMBER INDICATOR-GO TO STEP T

STEP V EXIT

ADD WORD TO BRAILLE LINE

STEP B IF FIRST BRAILLE CHARACTER OF -BRAILLE WORD- IS -BRAILLE END CHARACTER-, GO TO STEP V

IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP E

IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP D

STEP C INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-

MOVE BRAILLE CHARACTERS OF -BRAILLE WORD- TO -BRAILLE LINE- UPDATING -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE-

MOVE -BRAILLE END CHARACTER- TO NEXT BRAILLE CHARACTER IN -BRAILLE LINE-

MOVE -BRAILLE END CHARACTER- TO FIRST_ CHARACTER OF -BRAILLE WORD-

MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- EQUAL TO LOCATION OF FIRST CHARACTER IN -BRAILLE WORD-

GO TO STEP V

STE D IF BRAILLE CHARACTER BEFORE END CHARACTER IN -BRAILLE WORD- IS NOT -CODE FOR NUMBER COMMA-, GO TO STEP C STEP F IF -BY INTO TO INDICATOR- IS ON, GO TO STEP L

STEP F. EXECUTE -END BRAILLE LINE-

- EXAMINE FIRST BRAILLE CHARACTER IN -BRAILLE WORD- OR, IF CAPITAL, NEXT CHARACTER AFTER -CODE FOR CAPITAL-
- IF WORD BEGINS WITH -CODE FOR SPECIAL H-, REPLACE WITH -CODE FOR HIS- AND GO TO STEP J
- IF WORD BEGINS WITH -CODE FOR SPECIAL W- AND NEXT LETTER

 IS -CODE FOR A-, REPLACE WITH -CODE FOR WAS- AND GO TO

 STEP J
- IF WORD BEGINS WITH -CODE FOR SPECIAL W-, REPLACE WITH -CODE FOR WERE- AND GO TO STEP J
- IF WORD BEGINS WITH -CCDE FOR SPECIAL EN-, REPLACE WITH -CODE FOR ENOUGH- AND GO TO STEP J
- IF WORD BEGINS WITH -CODE FOR SPECIAL I-, REPLACE WITH -CODE FOR IN- AND GO TO STEP K
- IF WORD BEGINS WITH -CODE FOR SPECIAL C-, REPLACE WITH -CODE FOR COM- AND GO TO STEP J
- IF WORD BEGINS WITH -CODE FOR SPECIAL B-, REPLACE WITH -CODE FOR BE- AND GG TO STEP K
- STEP G IF -NUMBER HYPHEN INDICATOR- IS ON, GO TO STEP U
- STEP H IF -INDEX FORMAT INDICATOR- IS ON, EXECUTE -INDENT
 - IF -INSERT RUNNING HEAD INDICATOR- IS ON. EXECUTE -INSERT RUNNING HEAD-

RESET -NEW LINE INDICATOR-GO TO STEP B

- STEP J BYPASS NEXT TWO BRAILLE CHARACTERS AND SHIFT REMAINDER OF WORD AND END CHARACTER TWO POSITIONS TO THE LEFT DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 2

 GO TO STEP G
- STEP K BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD AND END CHARACTER ONE POSITION TO THE LEFT DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

GO TO STEP G

- STEP L BEGIN SCANNING BRAILLE CHARACTERS OF -BRAILLE WORD-
- STEP M IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR TO OF INTO-, GO TO STEP N
 - IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR BY- GO TO STEP Q
 - 'IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR TO- GO TO STEP P
 - MOVE NEXT BRAILLE CHARACTER OF -BRAILLE WORD- TO -BRAILLE LINE- INCREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND DECREASING -NUMBER OF BRAILLE 'CHARACTERS IN BRAILLE WORD- BY 1
 - INCREASE LOCATION FOR SCANNING -BRAILLE WORD- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH AND GO TO STEP M
- STEP N REPLACE -CODE FOR IN OF INTO- IN -BRAILLE LINE- WITH -CODE FOR IN-
- STEP P ADD -CODE FOR T- AND -CODE FOR O- TO -BRAILLE LINE- AND GO TO STEP R

STEP Q ADD -CODE FOR B- AND -CODE FOR Y- TO -BRAILLE LINE-STEP R ADD -CODE FOR SPACE- AND -BRAILLE END CHARACTER- TO -BRAILLE LINE-

> INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY 2

> DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

SHIFT REMAINING CHARACTERS OF -BRAILLE WORD- AND END CHARACTER TO EXTREME LEFT OF -BRAILLE WORD-

RESET -BY INTO TO INDICATOR-

IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL H-, REPLACE WITH -CODE FOR HIS- AND GO TO STEP S

IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL EN- REPLACE WITH -CODE FOR ENOUGH- AND GO TO STEP S

IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL B-, REPLACE WITH -CODE FOR BE- AND GO TO STEP T
GO TO STEP F

STEP S BYPASS NEXT TWO BRAILLE CHARACTERS AND SHIFT REMAINDER OF WORD AND END CHARACTER TWO POSITIONS TO THE LEFT DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 2

GO TO STEP F

STEP T BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD AND END CHARACTER ONE POSITION TO THE LEFT DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

GO TO STEP F

STEP U SAVE -INDEX AMOUNT- IN -INDEX AMOUNT REFERENCE- AND MOVE

1 TO -INDEX AMOUNT
EXECUTE -INDENT RUNOVER
RESTORE -INDEX AMOUNT- FROM -INDEX AMOUNT REFERENCE
MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER IN

-BRAILLE WORD
RESET -NUMBER HYPHEN INDICATOR-

GO TO STEP H

STEP V RESET -BY INTO TO INDICATOR-EXIT

END BRAILLE LINE

ERIC

IF FIRST BRAILLE CHARACTER OF -BRAILLE LINE- IS -BRAILLE END CHARACTER-, GO TO STEP P

IF CHARACTER BEFORE END CHARACTER IS NOT -CODE FOR NUMBER COMMA-, GO TO STEP B

ADD -BIG NUMBER HYPHEN- AND -BRAILLE END CHARACTER- AFTER -CODE FOR NUMBER COMMA- IN -BRAILLE LINE-, INCREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1, AND GO TO STEP D

STEP B IF CHARACTER BEFORE END CHARACTER IS -CODE FOR NUMBER HYPHEN INDICATOR-

STEP D IF -CENTERING INDICATOR- IS ON, GO TO STEP H
IF -ALIGN RIGHT MARGIN INDICATOR- IS ON, GO TO STEP N

STEP F IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS THAN 6, ADD -CODE FOR SPACE- CHARACTERS UNTIL -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS 6 AND ADD -BRAILLE END CHARACTER-

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, EXECUTE

-INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-

IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-

IF CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-,
SHIFT -BRAILLE END CHARACTER- ONE POSITION TO THE LEFT
AND DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
LINE- BY 1

REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH -END OF LINE CODE- AND ANNEX -BRAILLE END CHARACTER-

TO THE RIGHT

IF -INTERLINE FORMAT INDICATOR- IS ON, MOVE LOCATION OF FIRST CHARACTER OF -DATA FOR INTERLINE- TO -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT - AND EXECUTE -ADD TO OUTPUT DATA-

MOVE LOCATION OF FIRST CHARACTER OF -BRAILLE LINE- TO -LOCATION OF NEXT CODE TO BE ACCED TO OUTPUT AND EXECUTE -ADD TO OUTPUT DATA-

STORE -BRAILLE END CHARACTER- IN FIRST 'HARACTER IN -BRAILLE LINE-

MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE

MOVE LOCATION OF FIRST CHARACTER IN -BRAILLE LINE- TO -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE-

INCREASE -BRAILLE LINE NUMBER- BY 1

IF -BRAILLE LINE NUMBER- IS GREATER THAN -EFFECTIVE
MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE
-END BRAILLE PAGE BASIC- AND STORE 1 IN -BRAILLE LINE
NUMBER-

EXECUTE -SET BRAILLE LINE LENGTH-

GO TO STEP P

STEP H IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1

SET -CENTERING SHIFT FACTOR- EQUAL TO ONE-HALF THE DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP L

IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, MOVE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP L



STEP_J SHIFT CHARACTERS AND END CHARACTER IN -BRAILLE LINE- TO THE RIGHT THE NUMBER OF BRAILLE CHARACTERS SPECIFIED BY -CENTERING SHIFT FACTOR-

INCREASE - NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY -CENTERING SHIFT FACTOR-

FILL -BRAILLE LINE- TO THE LEFT OF SHIFTED CHARACTERS WITH -CODE FOR SPACE- CHARACTERS

GO TO STEP F

STEP L IF THE AMOUNT, -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS 3 MINUS -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, IS LESS THAN -CENTERING SHIFT FACTOR-, CHANGE -CENTERING SHIFT FACTOR- TO THE SMALLER AMOUNT GO TO STEP J

STEP N IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1

SET -RIGHT MARGIN SHIFT FACTOR- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-

IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON,
DECREASE -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY
-NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
TRANSLATED-

PROCESSING RIGHT TO LEFT SHIFT CHARACTERS TO THE RIGHT
THE AMOUNT SPECIFIED BY -RIGHT MARGIN SHIFT FACTORUNTIL -RIGHT MARGIN SIGNAL CODE- CHARACTER HAS BEEN
SHIFTED

FILL AREA BETWEEN ORIGINAL -RIGHT MARGIN SIGNAL CODE- AND SHIFTED -RIGHT MARGIN SIGNAL CODE- WITH THE SAME SIGNAL CODE

INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY -RIGHT MARGIN SHIFT FACTOR-

IF -INSERT LEADER DOTS INDICATOR- IS OFF, GO TO STEP F
IF -RIGHT MARGIN SHIFT FACTOR- IS LESS THAN 3, GO TO
STEP F

IN -BRAILLE LINE- REPLACE -RIGHT MARGIN SIGNAL CODE-CHARACTERS, EXCEPT THE FIRST AND THE LAST, WITH -CODE FOR DOT 5-

GO TO STEP F

STEP P RESET -ALIGN RIGHT MARGIN INDICATOR- AND -INSERT LEADER
DOTS INDICATOREXIT

INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE

EXECUTE -SPACE OUT BRAILLE LINE
IF -LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR
IS ON, GO TO EXIT

MOVE -BRAILLE PAGE NUMBER TRANSLATED- TO -BRAILLE LINE
ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST

SPACE OF LINE

EXIT

INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE

EXECUTE -SPACE OUT BRAILLE LINE
MOVE -INKPRINT PAGE NUMBER TRANSLATED- TO -BRAILLE LINE
ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST

SPACE OF LINE

EXECUTE -UPDATE INKPRINT PAGE NUMBER
RESET -INSERT INKPRINT PAGE LINE INDICATOR
EXIT

UPDATE INKPRINT PAGE NUMBER

SCAN -INKPRINT PAGE NUMBER TRANSLATED- FOR -CODE FOR HYPHEN- OR -CODE FOR NUMBER HYPHEN
IF NUMBER CONTAINS A HYPHEN, GO TO STEP D

STEP B IF FIRST BRAILLE CHARACTER OF -INKPRINT PAGE NUMBER
TRANSLATED- IS -CCDE FOR NUMBER SIGN- OR -CODE FOR
LETTER SIGN- GO TO STEP F

LOCATE FIRST CHARACTER OF -INKPRINT PAGE NUMBER
TRANSLATED- IN -TABLE OF BRAILLE LETTERS- AND MOVE
CODE FROM NEXT SUCCEEDING ENTRY TO FIRST CHARACTER OF
-INKPRINT PAGE NUMBER TRANSLATED-

GO' TO E'XIT

EXIT

STEP D DECREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
NUMBER TRANSLATED- BY NUMBER OF BRAILLE CHARACTERS TO
THE LEFT OF THE HYPHEN

SHIFT SECOND PART OF NUMBER AND BRAILLE END CHARACTER TO THE LEFT SO THAT FIRST CHARACTER AFTER HYPHEN REPLACES SECOND CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED-GO TO STEP B

STEP F SHIFT BRAILLE CHARACTERS AND BRAILLE END CHARACTER OF

-INKPRINT PAGE NUMBER TRANSLATED- ONE BRAILLE

CHARACTER TO THE RIGHT AND INCREASE -NUMBER OF BRAILLE

CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- BY 1

MOVE -CODE FOR A- TO FIRST CHARACTER OF -INKPRINT PAGE

NUMBER TRANSLATED
EXIT

SPACE OUT BRAILLE LINE

BEGINNING WITH -LOCATION FOR STORING NEXT BRAILLE

CHARACTER IN BRAILLE LINE- STORE -CODE FOR SPACE- IN

SUCCESSIVE POSITIONS IN -BRAILLE LINE- UNTIL -NUMBER

OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS -MAXIMUM

NUMBER OF BRAILLE CHARACTERS IN FULL LINE
PLACE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN

-BRAILLE LINE-

INDENT RUN-OVER

SHIFT BRAILLE CHARACTERS OF -BRAILLE WORD- AND END CHARACTER TO THE RIGHT THE NUMBER OF POSITIONS SPECIFIED IN -INDEX AMOUNT-

FILL AREA TO THE LEFT OF THE LAST SHIFTED CHARACTER WITH -CODE FOR SPACE- CHARACTERS

INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE MORD-BY -INDEX AMOUNT-

EXIT

SET BRAILLE LINE LENGTH

- SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
- RESET -INSERT BRAILLE PAGE NUMBER INDICATOR-, -INSERT INKPRINT PAGE NUMBER INDICATOR-, AND -INSERT RUNNING HEAD INDICATOR-
- IF -TEXTBOOK FORMAT INDICATOR- IS ON GO TO STEP D
- IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON, OR IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO STEP U
- IF -BRAILLE PAGE NUMBER- IS ODD AND IF -BRAILLE LINE NUMBER- IS 1, SET -INSERT RUNNING HEAD INDICATOR AND GO TO STEP W
- STEP B IF -CENTERING INDICATOR- IS ON, MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND GO TO STEP W
 - IF -ALTERNATE RIGHT MARGIN INDICATOR- IS ON, MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
 - GO TO STEP W
- STEP D IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F
 - IF -BRAILLE LINE NUMBER- IS 1, SET -INSERT RUNNING HEAD INDICATOR- AND GO TO STEP W
 - IF -BRAILLE LINE NUMBER- IS EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, SET -INSERT BRAILLE PAGE NUMBER INDICATOR- AND SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- MINUS 3
 - GO TO STEP H
- STEP F IF -BRAILLE LINE NUMBER- IS 1, SET -INSERT INKPRINT PAGE NUMBER INDICATOR- AND SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- MINUS 3
- STEP H IF -CENTERING INDICATOR- IS ON, GO TO STEP J
 IF -ALTERNATE RIGHT MARGIN INDICATOR- IS ON, GO TO STEP P
 GO TO STEP W

STEP J IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, MOVE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP N

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE

NUMBER- AND GO TO STEP N

STEP L MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND GO TO STEP W

STEP N IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-MINUS TWICE -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS 6 IS EQUAL TO OR GREATER THAN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-, GO TO STEP L

SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS 3 MINUS ONE-HALF THE DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-

GO TO STEP W

STEP P IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, OR IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, GO TO STEP T

STEP R MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND GO TO STEP W

STEP T IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP R GO TO STEP W

STEP U IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP B

IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON AND IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B

IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON AND IF -BRAILE PAGE NUMBER- IS ODD, GO TO STEP B

SET -INSERT BRAILLE PAGE NUMBER INDECATOR- AND SET
-FFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE
CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE
CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- MINUS 3

GO TO STEP H
SET -NEW LINE INDICATOR-

EXIT

STEP W

END BRAILLE PAGE BASIC

IF -BRAILLE LINE NUMBER- IS 1, GO TO EXIT

MOVE LOCATION OF -END OF PAGE CODES- TO -LOCATION OF NEXT

CODE TO BE ADDED TO OUTPUT
EXECUTE -ADD TO OUTPUT DATA
EXECUTE -END OUTPUT RECORD
SET -BRAILLE LINE NUMBER- EQUAL TO 1

INCREASE -BRAILLE PAGE NUMBER- BY 1 AND EXECUTE

-TRANSLATE BRAILLE PAGE NUMBER
EXECUTE -SET BRAILLE PAGE LENGTH-

INSERT RUNNING HEAD

STEP D

SET -RUNNING HEAD SHIFT FACTOR- EQUAL TO ONE-HALF THE DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-

IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP B

IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- MINUS 3 IS LESS, THAN -RUNNING HEAD SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL TO THE SMALLER AMOUNT

EXECUTE -MOVE RUNNING HEAD-

EXECUTE -INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-GO TO STEP D

STEP B IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-MINUS -NUMBER OF BRAILLE CHARACTERS, IN INKPRINT PAGE NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL TO THE SMALLER AMOUNT

EXECUTE -MOVE RUNNING HEAD-

EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-RESET -INSERT RUNNING HEAD INDICATOR-

REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH -END OF LINE CODE-

STORE-BRAILLE END CHARACTER- AFTER -END OF LINE CODE- IN -BRAILLE LINE-

MOVE_LOCATION OF FIRST CHARACTER OF -BRAILLE LINE- TO -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- EXECUTE -ADD TO OUTPUT DATA-

MOVE -BRAILLE END CHARACTER- TO FIRST BRAILLE CHARACTER
OF -BRAILLE LINE-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST, BRAILLE CHARACTER IN -BRAILLE LINE-

INCREASE -BRAILLE LINE NUMBER- BY 1

MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

EXECUTE -SET BRAILLE LINE LENGTH-EXIT

MOVE RUNNING HEAD

BEGINNING AT THE LEFT, MOVE TO -BRAILLE LINE- THE NUMBER OF BRAILLE SPACES SPECIFIED BY -RUNNING HEAD SHIFT FACTOR-

ADD BRAILLE CHARACTERS FROM -RUNNING HEAD- AND END CHARACTER TO -BRAILLE LINE-

SET - NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- PLUS -RUNNING HEAD SHIFT FACTOR-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER IN -BRAILLE LINE-

EXIT

SET BRAILLE PAGE LENGTH

STORE -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- IN
-EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGEIF -INTERLINE FORMAT INDICATOR- IS OFF, GO TO EXIT
IF -BRAILLE PAGE NUMBER- IS EVEN, DECREASE -EFFECTIVE
MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- BY 1
EXIT

TRANSLATE BRAILLE PAGE NUMBER

MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER OF -BRAILLE PAGE NUMBER TRANSLATED-

STORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-

BEGINNING WITH LEFTMOST SIGNIFICANT DIGIT OF -BRAILLE PAGE NUMBER-, OR WITH LOW ORDER DIGIT IF ALL ZEROS, LOOK UP BRAILLE EQUIVALENTS IN -TABLE OF BRAILLE NUMBERS-, STORE EQUIVALENTS LEFT TO RIGHT IN -BRAILLE PAGE NUMBER TRANSLATED-, AND INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-BY 1 FOR EACH EQUIVALENT STORED, UNTIL EQUIVALENT OF LOW ORDER DIGIT HAS BEEN STORED

STORE -BRAILLE END CHARACTER- FOLLOWING LAST BRAILLE CHARACTER OF -BRAILLE PAGE NUMBER TRANSCATED-

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INSERT INKPRINT PAGE LINE IF -BRAILLE PAGE NUMBER- IS NOT THE SAME AS -BRAILLE PAGE NUMBER REFERENCE FOR NEW INKPRINT_ PAGE-, GO TO STEP D IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP D IF -BRAILLE LINE NUMBER- EQUALS -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP B MOVE -CODE FOR DOTS 3 AND 6- TO SUCCESSIVE POSITIONS IN -BRAILLE LINE- UNTIL LINE LENGTH EQUALS_ -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER STORED IN -BRAILLE LINE-MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-EXECUTE -END BRAILLE LINE-GO TO STEP D STEP B IF -INSERT RUNNING HEAD INDICATOR- IS ON - EXECUTE -INSERT RUNNING HEAD-MOVE -CODE FOR SPACE- TO FIRST BRAILLE CHARACTER OF -BRAILLE LINE-MOVE -BRAILLE END CHARACTER- TO SECOND BRAILLE CHARACTER OF -BRAILLE LINE-MOVE 1 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-SET - LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE CHARACTER IN -BRAILLE LINE-EXECUTE -END BRAILLE LINE-STEP D RESET -INSERT INKPRINT PAGE LINE INDICATOR-EXIT

INSERT BLANK LINE ABSOLUTE
IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
RUNNING HEADIF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
-INSERT INKPRINT PAGE LINEMOVE -CODE FOR SPACE- AND -BRAILLE END CHARACTER- TO
FIRST TWO POSITIONS OF -BRAILLE LINESTORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINESET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE
CHARACTER OF -BRAILLE LINEEXECUTE -END BRAILLE LINEEXECUTE -END BRAILLE LINE-

END BRAILLE WORD AND LINE

EXECUTE -ADD WORD TO BRAILLE LINE
EXECUTE -END BRAILLE LINE
EXIT

ERIC

END BRAILLE PAGE CGMPLETE

EXECUTE -END BRAILLE WORD AND LINE-

IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J

RESET -INSERT INKPRINT PAGE LINE INDICATOR-

IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON, GO TO STEP D

IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP D

IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO STEP H

STEP B EXECUTE -END BRAILLE PAGE BASIC-STORE 1 IN -BRAILLE LINE NUMBER-EXECUTE -SET BRAILLE LINE LENGTH-GO TO STEP J

STEP D IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B

STEP F IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J' EXECUTE -INSERT BLANK LINE ABSOLUTE- GO TO STEP F

STEP H IF -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B
GO TO STEP F

STEP J EXIT

INDENT

EXECUTE -END BRAILLE WORD AND LINE-

IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-

IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE -INSERT INKPRINT PAGE LINE-

IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-

MOVE -INDENT FACTOR- TO =NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

STORE -CODE FOR SPACE- IN NUMBER OF SUCCESSIVE POSITIONS OF -BRAILLE LINE- SPECIFIED BY -INDENT FACTOR-

STORE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN -BRAILLE LINE-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION WHERE END CHARACTER IS STORED

RESET -NEW LINE INDICATOR-EXIT

END OF PAGE TEST

IF -BRAILLE LINE NUMBER- PLUS -LINES REQUIRED BEFORE END OF PAGE- MINUS I IS GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -END BRAILLE PAGE COMPLETE-

EXIT



STORE BRAILLE LINE MOVE BRAILLE CHARACTERS AND END CHARACTER FROM -BRAILLE LINE- TO -STORED BRAILLE LINE- MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- MOVE -BRAILLE END CHARACTER- TO FIRST POSITION OF -BRAILLE LINE- SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER OF -BRAILLE LINE- IS -CODE FOR SPACE-, REPLACE WITH -CODE FOR SPECIAL SPACE-

MOVE STORED BRAILLE LINE

IF CHARACTER BEFORE END CHARACTER OF -STORED BRAILLE

LINE- IS NOT -CODE FOR SPACE-, SHIFT END CHARACTER ONE

POSITION TO THE RIGHT, AND INSERT -CODE FOR SPACE
SAVE -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- IN

-BRAILLE TABLE LOCATION REFERENCE
SET -LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE

SET -LOCATION OF NEXT BRAILLE CHARACTER IN STURED BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER OF -STORED BRAILLE LINE-

STEP B IF NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- IS
-BRAILLE END CHARACTER-, GO TO STEP D
MOVE NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- TO
FIRST BRAILLE CHARACTER OF -DUMMY BRAILLE TABLE ENTRYSTORE -BRAILLE END CHARACTER- IN -DUMMY BRAILLE TABLE

ENTRY- AFTER BRAILLE CHARACTER MOVED FROM -STORED
BRAILLE LINE-

SET -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- EQUAL TO LOCATION OF -DUMMY BRAILLE TABLE ENTRYINCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN STORED
BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER
EXECUTE -ADD TO BRAILLE WORDGO TO STEP B

STEP D MOVE -BRAILLE TABLE LOCATION REFERENCE- TO -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-

CENTER BRAILLE LINE

IF -CENTERING INDICATOR- IS OFF, GO TO STEP B

EXECUTE -END BRAILLE LINE
GO TO STEP D

STEP B SET -CENTERING INDICATOREXECUTE -SET BRAILLE LINE LENGTHEXECUTE -END BRAILLE LINERESET -CENTERING INDICATOREXECUTE -SET BRAILLE LINE LENGTHSTEP D EXIT

GET FORMAT SYMBOL FACTOR

STORE ZERO IN -FCRMAT SYMBOL FACTOR-

STEP B INCREASE -LCCATION OF LAST CHARACTER OF PRIMARY UNIT- BY LENGTH OF ONE CHARACTER

IF LAST CHARACTER OF PRIMARY UNIT IS SPACE, GO TO STEP D SHIFT CHARACTERS OF -FCRMAT SYMBOL FACTOR- TO THE LEFT ONE DIGIT

MOVE LAST CHARACTER OF PRIMARY UNIT TO LOW ORDER DIGIT OF -FORMAT SYMBOL FACTOR-

GO TO STEP B

STEP D EXIT

END COLUMN GROUP

EXECUTE -ADD WORD TO BRAILLE LINE-

IF LAST BRAILLE CHARACTER OF -BRAILLE LINE- BEFORE END CHARACTER IS SPACE, GO TO STEP B

REPLACE END CHARACTER OF -BRAILLE LINE- WITH -CODE FOR SPACE- AND PLACE -BRAILLE END CHARACTER- AFTER SPACE INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH

STEP B REPLACE -CODE FOR SPACE- BEFORE END CHARACTER IN -BRAILLE LINE- WITH -EFFECTIVE COLUMN SIGNAL CODE-

SET - TEMPORARY COLUMN WIDTH- EQUAL TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- MINUS -PREVIOUS LINE LENGTH- MINUS 1

IF -TEMPORARY COLUMN WIDTH- IS GREATER THAN WIDTH FOR -COLUMN NUMBER- IN -TABLE OF COLUMN WIDTHS-, REPLACE TABLE AMOUNT WITH AMOUNT OF -TEMPORARY COLUMN WIDTH-EXIT

BEGIN COLUMN GROUP

MOVE -NEXT COLUMN SIGNAL CODE- TO -EFFECTIVE COLUMN SIGNAL CODE-

MOVE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- TO -PREVIOUS LINE LENGTH-

INCREASE -COLUMN NUMBER- BY 1 EXIT

STORE COLUMN LINE

MOVE -BRAILLE LINE- TO -COLUMN LINE-WRITE -COLUMN LINE- IN TEMPORARY FILE

MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

STORE -BRAILLE END CHARACTER- IN FIRST CHARACTER OF -BRAILLE LINE-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -BRAILLE LINE-

EXIT

INSERT SPACES BETWEEN COLUMNS
STEP B IF -COLUMN ADJUSTMENT FACTOR- IS LESS THAN 1, GO TO
STEP D

DECREASE -COLUMN ADJUSTMENT FACTOR- BY 1
MOVE_-CODE FOR SPACE- TO NEXT BRAILLE CHARACTER OF
-BRAILLE WORD-

INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- BY BRAILLE CHARACTER LENGTH

STORE -BRAILLE END CHARACTER- IN NEXT BRAILLE CHARACTER
OF -BRAILLE WORD-

INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

GO TO STEP B

STEP D EXIT

MOVE COLUMN, GROUP

DECREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE- BY BRAILLE CHARACTER LENGTH MULTIPLIED BY -TEMPORARY COLUMN WIDTH-

STEP B IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN LEFT ALIGN SIGNAL CODE- OR -COLUMN RIGHT ALIGN SIGNAL CODE-, GO TO STEP D

MOVE NEXT BRAILLE CHARACTER IN -COLUMN LINE- TO NEXT BRAILLE CHARACTER IN -BRAILLE WORD-

INCREASE - NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

INCREASE -LOCATION_OF NEXT BRAILLE CHARACTER IN COLUMN LINE- BY LENGTH OF ONE BRAILLE CHARACTER

INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- BY LENGTH OF ONE BRAILLE CHARACTER GO TO STEP B

STEP D INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE- BY BRAILLE CHARACTER LENGTH

STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER STORED IN -BRAILLE WORD-

EXIT

RESÉT GENERAL FORMAT INDICATORS

RESET -MAGAZINE FORMAT NUMBERED EVEN INDICATOR-,
-MAGAZINE FORMAT NUMBERED ODD INDICATOR-, -LEAVE BLANK
AREA FOR BRAILLE PAGE NUMBER INDICATOR-, -TEXTBOOK
FORMAT INDICATOR- AND -INTERLINE FORMAT INDICATOREXIT

OPERATION 101 BEGIN LITERARY FORMAT

EXECUTE -RESET GENERAL FORMAT_INDICATORS
EXECUTE -SET BRAILLE PAGE LENGTH
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION 102 BEGIN TEXTBOOK FORMAT

EXECUTE -RESET GENERAL FORMAT INDICATORSSET -TEXTBOOK FORMAT INDICATOREXECUTE -SET BRAILLE PAGE LENGTHEXECUTE -SET BRAILLE LINE LENGTHGO TO -MAIN PROGRAM- STEP 2

OPERATION 103 BEGIN TEXTBOOK INTERLINE FORMAT

EXECUTE -RESET GENERAL FORMAT INDICATORS
SET -TEXTBOOK FORMAT INDICATOR
SET -INTERLINE FORMAT INDICATOR
EXECUTE -SET BRAILLE PAGE LENGTH
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM - STEP 2

OPERATION 104 BEGIN MAGAZINE FORMAT NUMBERING ODD PAGES
EXECUTE -RESET GENERAL FORMAT INDICATORS SET -MAGAZINE FORMAT NUMBERED ODD INDICATOR EXECUTE -SET BRAILLE PAGE LENGTH EXECUTE -SET BRAILLE LINE LENGTH GO TO -MAIN PROGRAM - STEP 2

DPERATION 105 BEGIN MAGAZINE FORMAT NUMBERING EVEN PAGES
EXECUTE -RESET GENERAL FORMAT INDICATORSSET -MAGAZINE FORMAT NUMBERED EVEN INDICATOREXECUTE -SET BRAILLE PAGE LENGTHEXECUTE -SET BRAILLE LI'NE LENGTHGO TO -MAIN PROGRAM- STEP 2

OPERATION 109 SPECIFY PAGE LENGTH

EXECUTE -GET FORMAT SYMBOL FACTORSTORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF LINES

FOR BRAILLE PAGEEXECUTE -SET BRAILLE PAGE L'ENGTHEXECUTE -SET BRAILLE LINE LENGTHGO TO -MAIN PROGRAM- STEP 2

OPERATION 110 SPECIFY FULL LINE LENGTH

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF

BRAILLE CHARACTERS IN FULL LINE
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION III SPECIFY CENTERED LINE LENGTH

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF

BRAILLE CHARACTERS IN CENTERED LINE
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION 112 SPECIFY BRAILLE CARD NUMBER INCREMENT

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -INCREMENT FOR BRAILLE

CARD NUMBER
GO TO -MAIN PROGRAM- STEP 2

OPERATION 116 SPECIFY SOURCE NUMBER

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -SOURCE NUMBERGO TO -MAIN PROGRAM- STEP 2

OPERATION 117 SPECIFY TITLE NUMBER

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -TITLE NUMBERGO TO -MAIN PROGRAM- STEP 2

OPERATION 118 SPECIFY BRAILLE VOLUME NUMBER EXECUTE -GET FORMAT SYMBOL FACTORSTORE -FORMAT SYMBOL FACTOR- IN -BRAILLE VOLUME NUMBERGO TO -MAIN PROGRAM- STEP 2

OPERATION 119 SPECIFY BRAILLE PAGE NUMBER

EXECUTE -GET FORMAT SYMBOL FACTOR
EXECUTE -END BRAILLE PAGE COMPLETE
STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE PAGE NUMBER
EXECUTE -TRANSLATE BRAILLE PAGE NUMBER
EXECUTE -SET BRAILLE PAGE LENGTH
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION 120 ADVANCE TO SPECIFIED BRAILLE LINE EXECUTE -END BRAILLE WORD AND LINE-EXECUTE -GET FORMAT SYMBOL FACTOR-

STEP B IF -BRAILLE LINE NUMBER- EQUALS -FORMAT SYMBOL FACTOR-,
GO TO STEP D
EXECUTE -INSERT BLANK LINE ABSOLUTEGO TO STEP B

STEP D EXECUTE -END OUTPUT RECORD-EXECUTE -SET_BRAILLE LINE LENGTH-GO TO -MAIN PROGRAM- STEP 2

OPERATION 121 SPECIFY BRAILLE CARD NUMBER

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE CARD NUMBERGO TO -MAIN_PROGRAM- STEP 2

OPERATION 124 END RUN

EXECUTE -END BRAILLE WORD AND LINE
EXECUTE -END BRAILLE PAGE COMPLETE
CLOSE OUTPUT FILE

OPERATION 125 BEGIN NEW PARAGRAPH

MOVE 2 TO -INDENT FACTOR
EXECUTE -END BRAILLE WORD AND LINE
EXECUTE -END OUTPUT RECORD
EXECUTE -INDENT
GO TO -MAIN PROGRAM- STEP 2

OPERATION 126 END LINE

EXECUTE -END BRAILLE WORD AND LINEGO TO -MAIN PROGRAM- STEP 2

OPERATION 127 ADVANCE TO NEXT BRAILLE PAGE EXECUTE -END BRAILLE PAGE COMPLETE-GO TO -MAIN PROGRAM- STEP 2

OPERATION 128 ADVANCE TO NEXT ODD-NUMBERED BRAILLE PAGE
EXECUTE -END BRAILLE PAGE COMPLETEIF -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B
EXECUTE -INSERT BLANK L'INE ABSOLUTEEXECUTE -END BRAILLE PAGE COMPLETESTEP B GO TO -MAIN PROGRAM- STEP 2

OPERATION 129 SKIP A LINE

EXECUTE -END BRAILLE WORD AND LINE
IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON AND IF

-INSERT RUNNING HEAD INDICATOR- IS OFF, GO TO STEP H

IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- OR -MAGAZINE

FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO STEP F

IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP D

STEP B EXECUTE -INSERT BLANK LINE ABSOLUTEGO TO STEP H

STEP D IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
IF -BRAILLE LINE NUMBER- IS EQUAL TO -EFFECTIVE MAXIMUM
NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -INSERT
BLANK LINE ABSOLUTEGO TO STEP B

STEP F IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
GO TO STEP B

STEP H GO TO -MAIN_PROGRAM- STEP 2

ERIC

OPERATION 130 BREAK EXECUTE -ADD WORD TO BRAILLE LINE-IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F IF -BRAILLE LINE NUMBER- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- MINUS 1, GO TO STEP B EXECUTE -STORE BRAILLE LINE-EXECUTE -END BRAILLE PAGE COMPLETE-EXECUTE -MOVE STORED BRAILLE LINE-STEP B EXECUTE -END BRAILLE WORD AND LINE-STEP D EXECUTE -INSERT BLANK LINE ABSOLUTE-GO TO STEP J IF -BRAILLE LINE NUMBER- IS 1 LESS THAN -EFFECTIVE STEP F MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP H GO TO STEP B EXECUTE -END BRAILLE WORD AND LINE-STEP H EXECUTE -INSERT BLANK LINE ABSOLUTE-_ , , GO TO STEP D GO TO -MAIN PROGRAM- STEP 2 OPERATION 132 BEGIN CHAPTER TITLE EXECUTE -GET FORMAT SYMBOL FACTOR-ADD 4 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN -LINES REQUIRED BEFORE END OF PAGE-STEP B EXECUTE -END BRAILLE WORD AND LINE-EXECUTE -END OF PAGE TEST-SET -CENTERING INDICATOR-EXECUTE -SET BRAILLE LINE LENGTH-GO TO OPERATION 129

OPERATION 133 END CHAPTER TITLE

EXECUTE -END BRAILLE WORD AND LINE
RESET -CENTERING INDICATOR
EXECUTE -INSERT BLANK LINE ABSOLUTE
GO TO -MAIN PROGRAM- STEP 2

DPERATION 134 BEGIN HEADING

EXECUTE -GET FORMAT SYMBOL FACTOR
ADD 2 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN

-LINES REQUIRED BEFORE END OF PAGE
GD TO OPERATION 132 STEP B

OPERATION 135 END HEADING
GO TO OPERATION 137

OPERATION 136 BEGIN CENTERING

EXECUTE -END BRAILLE WORD AND LINESEY -CENTERING INDICATOREXECUTE -SET BRAILLE LINE LENGTHGO TO -MAIN PROGRAM- STEP 2

OPERATION 137 END CENTERING

EXECUTE -END_BRAILLE WORD AND LINE
RESET -CENTERING INDICATOR
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION 138 BEGIN POETRY

EXECUTE -END BRAILLE WORD AND LINE
SET -INDEX FORMAT INDICATOR
STORE 2 IN -INDEX AMOUNT
GO TO -MAIN PROGRAM- STEP 2

OPERATION 1.40 END POETRY
GO TO OPERATION 143

ERIC

OPERATION 141 INDENT THIS LINE

IF CHARACTER IN -TEXT- FOLLOWING LAST CHARACTER OF

PRIMARY UNIT IS NOT A NUMBER, GO TO -MAIN PROGRAM
STEP 4

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -INDENT FACTOR
EXECUTE -INDENT-

OPERATION 142 BEGIN INDEX

EXECUTE -END BRAILLE WORD AND LINE
SET -INDEX FORMAT INDICATOR
EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -INDEX AMOUNT
GO TO -MAIN PROGRAM- STEP 2

OPERATION 143 END INDEX FORMAT

EXECUTE -END BRAILLE WORD AND LINERESET -INDEX FORMAT INDICATORGO TO -MAIN PROGRAM- STEP 2

GO TO -MAIN PROGRAM- STEP 2

DPERATION 144 DO NOT SEPARATE LINES AT END OF PAGE

EXECUTE -END BRAILLE WORD AND LINE
EXECUTE -GET FORMAT SYMBOL FACTOR
STEP B STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE

END OF PAGE
IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, INCREASE

-LINES REQUIRED BEFORE END OF PAGE- BY 1

EXECUTE -END OF PAGE TEST
GO TO -MAIN PROGRAM- STEP 2

OPERATION 145 LETTER CLOSING EXECUTE -GET FORMAT SYMBOL FACTOR-EXECUTE -ADD WORD TO BRAILLE LINE-IF -BRAILLE LINE NUMBER- PLUS -FORMAT SYMBOL FACTOR- IS GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP B EXECUTE -END BRAILLE LINE-GO TO STEP D STEP B EXECUTE -STORE BRAILLE LINE-EXECUTE -END BRAILLE PAGE COMPLETE-EXECUTE -MOVE STORED BRAILLE LINE-EXECUTE -END BRAILLE WORD AND LINE-GO TO -MAIN PROGRAM- STEP 2 STEP D OPERATION 148 ALIGN AT RIGHT MARGIN SET -ALIGN RIGHT MARGIN INDICATOR-EXECUTE -ADD WORD TO BRAILLE LINE-IF LAST CHARACTER BEFORE END CHARACTER IN -BRAILLE LINE-IS -CODE FOR SPACE-, GO TO STEP B _

RIGHT AND INSERT -CODE FOR SPACE- DEFORE END CHARACTER INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY 1

STEP B REPLACE SPACE BEFORE END CHARACTER IN -BRAILLE LINE-WITH

-RIGHT MARGIN SIGNAL CODEMOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-

TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

SHIFT END CHARACTER OF -BRAILLE LINE ONE POSITION TO THE

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- PLUS 3.

IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON,
DECREASE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
CHAPACTERS IN BRAILLE LINE- BY -NUMBER OF BRAILLE
CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- PLUS 3
GO TO -MAIN PROGRAM- STEP 2

OPERATION 149 INSERT LEADER DOTS
SET -INSERT LEADER DOTS INDICATORGO TO -MAIN PROGRAM- STEP 2

OPERATION 150 BEGIN RUNNING HEAD

STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER
OF -RUNNING HEAD-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN RUNNING HEAD- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -RUNNING HEAD-

MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-

SET -ADD TO RUNNING HEAD INDICATOR-GO TO -MAIN PROGRAM- STEP 2 OPERATION 151 END RUNNING HEAD

RESET -ADD TO RUNNING HEAD INDICATOR
IF LAST BRAILLE CHARACTER IN -RUNNING HEAD- BEFORE END

CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE

POSITION TO THE LEFT IN -RUNNING HEAD- AND DECREASE

-NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- BY 1

GO TO -MAIN PROGRAM- STEP 2

OPERATION 152 ASTERISK BREAK EXECUTE -ADD WORD TO BRAILLE LINE-IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- GO TO STEP B EXECUTE -STORE BRAILLE LINE-EXECUTE -END BRAILLE PAGE COMPLETE-EXECUTE -MOVE STORED BRAILLE LINE-EXECUTE -END BRAILLE WORD AND LINE-IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-STORE -CODE FOR ASTERISK- SUCCESSIVELY IN FIRST EIGHT BRAILLE CHARACTERS OF -BRAILLE LINE-STORE -CODE FOR SPACE- IN 3RD AND 5TH BRAILLE CHARACTERS OF -BRAILLE LINE-STORE -BRAILLE END CHARACTER- FOLLOWING LAST ASTERISK STORE 8 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF 9TH BRAILLE CHARACTER IN -BRAILLE LINE-EXECUTE -CENTER BRAILLE LINE-GO TO -MAIN PROGRAM- STEP 2

OPERATION 153 INSERT CENTERED COLON LINE

EXECUTE -END BRAILLE WORD AND LINE
IF -BRAILLE LINE NUMBER- EQUALS 1, GO TO -MAIN PROGRAM
STEP 2

STORE -CODE FOR COLON- SUCCESSIVELY IN FIRST TWELVE

BRAILLE CHARACTERS OF -BRAILLE LINE
STORE -BRAILLE, END CHARACTER- FOLLOWING LAST COLON

MOVE 12 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN

BRAILLE LINE- EQUAL TO LOCATION OF 13TH BRAILLE

CHARACTER OF -BRAILLE LINE
EXECUTE -CENTER BRAILLE LINE
GO TO -MAIN PROGRAM- STEP 2

OPERATION 156 BEGIN ALTERNATE RIGHT MARGIN

EXECUTE -GET FORMAT SYMBOL FACTOR
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF

BRAILLE CHARACTERS IN ALTERNATE LINE
SET -ALTERNATE RIGHT MARGIN INDICATOR
EXECUTE -SET BRAILLE LINE LENGTH
GO TO -MAIN PROGRAM- STEP 2

OPERATION 157 END ALTERNATE RIGHT MARGIN
RESET -ALTERNATE RIGHT MARGIN INDICATOREXECUTE -SET BRAILLE LINE LENGTHGO TO -MAIN PROGRAM- STEP 2

OPERATION 158 BEGIN GRADE 1 TRANSLATION
SET -GRADE 1 INDICATORGO TO -MAIN PROGRAM- STEP 2

OPERATION 159 END GRADE 1 TRANSLATION

RESET -GRADE 1 INDICATOR
MOVE -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- TO RIGHT END

TYPE IN -BRAILLE TABLE- ENTRY FOR PRIMARY UNIT

GO TO -MAIN PROGRAM- STEP 2

OPERATION 160 BEGINNING OF NEW INKPRINT PAGE

SET -INSERT_INKPRINT PAGE LINE INDICATORSET -ADD TO INKPRINT PAGE NUMBER INDICATOREXECUTE -END BRAILLE WURD AND LINEMOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN INKPRINT
PAGE NUMBER TRANSLATEDSET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
INKPRINT PAGE NUMBER TRANSLATED- EQUAL TO LOCATION OF
FIRST BRAILLE CHARACTER IN -INKPRINT PAGE NUMBER
TRANSLATEDMOVE -BRAILLE PAGE NUMBER- TO -BRAILLE PAGE NUMBER
REFERENCE FOR NEW INKPRINT PAGEGO TO -MAIN PROGRAM- STEP 2

DPERATION 161 BEGIN ONE LINE CHAPTER TITLE

STORE 5 IN -LINES REQUIRED BEFORE END OF PAGEGO TO OPERATION 132 STEP B

OPERATION 162 BEGIN ONE LINE HEADING

STORE 3 IN -LINES REQUIRED BEFORE END OF PAGEGO TO OPERATION 132 STEP B

OPERATION 164 LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER
SET -LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATORGO TO -MAIN PROGRAM- STEP 2

DPERATION 166 INSERT FULL LINE OF COLONS

EXECUTE -END BRAILLE WORD AND LINE
STORE -CODE FOR COLON- SUCCESSIVELY IN -BRAILLE LINE- THE

AMOUNT OF TIMES SPECIFIED BY -EFFECTIVE MAXIMUM NUMBER

OF BRAILLE CHARACTERS IN BRAILLE LINE
STORE -BRAILLE END CHARACTER- AFTER LAST COLON STORED

MOVE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN

BRAILLE LINE- TO -NUMBER OF BRAILLE CHARACTERS IN

BRAILLE LINE
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN

BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER

EXECUTE -END BRAILLE LINE
GO TO -MAIN PROGRAM- STEP 2

OPERATION 167 INSERT CENTERD DOTS EXECUTE -END BRAILLE WORD AND LINE-EXECUTE -GET FORMAT SYMBOL FACTOR-IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP F DOUBLE -FORMAT SYMBOL FACTOR-DECREASE -FORMAT SYMBOL FACTOR- BY 1 GO TO STEP D STORE -CODE FOR SPACE- IN BRAILLE LINE INCREASING -NUMBER STEP B OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND INCREASING -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH STORE -CODE FOR DOT 5- IN -BRAILLE LINE- INCREASING STEP D -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND INCREASING -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH STORE -BRAILLE END CHARACTER- AFTER DOT IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS THAN -FORMAT SYMBOL FACTOR-, GO TO STEP B EXECUTE -- CENTER BRAILLE LINE-GO TO -MAIN PROGRAM- STEP 2 STEP F OPERATION 168 ADVANCE TO SPECIFIED BRAILLE CELL NUMBER EXECUTE -GET FORMAT SYMBOL FACTOR-EXECUTE -ADD WORD TO BRAILLE LINE-DECREASE -FORMAT SYMBOL FACTOR- BY 1 STEP B IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS NOT LESS THAN -FORMAT SYMBOL FACTOR-, GO TO STEP D MOVE -CODE FOR SPACE- TO NEXT BRAILLE CHARACTER IN -BRAILLE LINE-STORE -BRAILLE END CHARACTER- AFTER SPACE INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-BY 1 INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER GO TO STEP B GO TO -MAIN PROGRAM- STEP 2 STEP D OPERATION 169 RESERVE BLOCK OF BLANK LINES EXECUTE -END BRAILLE WORD AND LINE-EXECUTE -GET FORMAT SYMBOL FACTOR-STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE END OF PAGE-

IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON. INCREASE -LINES REQUIRED BEFORE END OF PAGE- BY 1 EXECUTE -END OF PAGE TEST-EXECUTE -INSERT BLANK LINE ABSOLUTE- THE NUMBER OF TIMES SPECIFIED BY -FORMAT SYMBOL FACTOR-GO TO -MAIN PROGRAM- STEP 2



OPERATION 172 BEGIN CCLUMN FORMAT

EXECUTE -END BRAILLE WORD AND LINE
STORE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN

BRAILLE LINE- IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS

IN NEXT LINE
STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE
IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN

BRAILLE LINE
OPEN TEMPORARY FILE

CLEAR ALL WIDTHS IN -TABLE OF COLUMN WIDTHS
SET -COLUMN FIRST LINE INDICATOR
STORE ZERO IN -INDENT FACTOR
EXECUTE -INDENT
GO TO -MAIN PROGRAM- STEP 2

OPERATION 174 RIGHT ALIGN IN COLUMN

MOVE -COLUMN RIGHT ALIGN SIGNAL CODE- TO -NEXT COLUMN

SIGNAL CODE-

STEP B EXECUTE -GET FORMAT SYMBOL FACTOR
IF -FORMAT SYMBOL FACTOR- IS 1, GO TO STEP D

EXECUTE -END COLUMN GROUP
EXECUTE -BEGIN COLUMN GROUP
GO TO STEP J

STEP D IF -COLUMN FIRST_LINE INDICATOR- IS OFF. GO TO STEP H
RESET -COLUMN FIRST LINE INDICATOR-

STEP F STORE ZERO IN -COLUMN NUMBER-EXECUTE -BEGIN COLUMN GROUP-GO TO STEP J

STEP H EXECUTE -END COLUMN GROUP-EXECUTE -STORE COLUMN LINE-GO TO STEP F

STEP J GO TO -MAIN PROGRAM- STEP 2

ERIC

OPERATION 175 END COLUMN FORMAT

EXECUTE -END COLUMN GROUPEXECUTE -STORE CCLUNN LINECLOSE TEMPORARY FILE
STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN NEXT LINEIN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINERE-OPEN TEMPORARY FILE
STEP B IF ALL DATA HAS BEEN READ FROM TEMPORARY FILE, GO TO
STEP V
GET -COLUMN LINE- FROM TEMPORARY FILE
STORE 1 IN -COLUMN NUMBERSET -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINEEQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN

-COLUMN LINE-D STORE ZERO IN -TEMPORARY COLUMN WIDTH-

STEP D STORE ZERG IN -TEMPORARY COLUMN WIDTH-STEP F IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -BRAILLE END CHARACTER-, GO TO STEP N

IF NEXT BRAILE CHARACTER IN -COLUMN LINE- IS -COLUMN LEFT ALIGN SIGNAL CODE-, RESET -COLUMN RIGHT ALIGN INDICATOR- AND GO TO STEP H

IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN RIGHT ALIGN SIGNAL CODE-, SET -COLUMN RIGHT ALIGN INDICATOR- AND GO TO STEP H

INCREASE - TEMPORARY COLUMN WIDTH - BY 1

INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE- BY BRAILLE CHARACTER LENGTH

STEP H SUBTRACT -TEMPORARY COLUMN WIDTH- FROM WIDTH FOR -COLUMN NUMBER- IN -TABLE OF COLUMN WIDTHS- AND STORE DIFFERENCE IN -COLUMN ADJUSTMENT FACTOR-INCREASE -COLUMN NUMBER- BY 1

IF -COLUMN RIGHT ALIGN INDICATOR- IS ON, GO TO STEP L

EXECUTE -MOVE COLUMN GROUP-EXECUTE -INSERT SPACES BETWEEN COLUMNS-

STORE 2 IN -COLUMN ADJUSTMENT FACTOR-EXECUTE -INSERT SPACES BETWEEN COLUMNS-GO TO STEP D

STEP L EXECUTE -INSERT SPACES BETWEEN COLUMNS-EXECUTE -MOVE COLUMN GROUP-GO TO STEP J

STEP N IF FIRST BRAILLE CHARACTER IN -BRAILLE WORD- IS -CODE FOR SPACE-, REPLACE THIS CHARACTER WITH -CODE FOR SPECIAL SPACE-

IF LAST BRAILLE CHARACTER IN -BRAILLE WORD- BEFORE END CHARACTER IS NOT -CODE FOR SPACE-, GO TO STEP P

SHIFT -BRAILLE END CHARACTER- IN -BRAILLE WORD- ONE POSITION TO THE LEFT

DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-BY 1

IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS GREATER THAN 1, GO TO STEP N

STEP P IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS THAN OR EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-, GO TO STEP R
SHIFT -BRAILLE END CHARACTER- IN BRAILLE WORD ONE POSITION TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-

BY 1 GO TO STEP P

STEP R IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS THAN OR EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP T EXECUTE -INSERT BLANK LINE ABSOLUTEGO TO STEP R

STEP T IF -INSERT RUNNING HEAD INDICATOR- IS ON. EXECUTE -INSERT RUNNING HEADEXECUTE -END BRAILLE WORD AND LINEGO TO STEP B

STEP V GO TO -MAIN PROGRAM- STEP 2 "

OPERATION 176 BEGIN THIS LINE AT LEFT MARGIN

STORE ZERO IN -INDENT FACTOREXECUTE -INDENTGO TO -MAIN PROGRAM- STEP 2

STORE ZEROS IN ALL POSITIONS OF -OUTPUT DATA-EXIT

SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER

BEGINNING WITH LOW ORDER DIGIT LOOK UP DIGITS OF -DECIMAL NUMBER- IN -TABLE OF 8-BIT EQUIVALENTS- AND STORE VALUES SUCCESSIVELY IN -4-BIT DIGIT LIST- USING TWO LIST POSITIONS FOR EACH DECIMAL DIGIT AND STORING FIRST THE LOW ORDER 4 BITS FROM THE TABLE ENTRY AND THEN THE HIGH ORDER 4 BITS

EXIT

ERIC

INSERT NUMBERS FOR BRAILLE CARD

MOVE -TITLE NUMBER- TO -DECIMAL NUMBER-EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM LIST TO LOW ORDER 4 BITS OF POSITIONS 33 TO 26 IN -OUTPUT DATA-

MOVE -BRAILLE VOLUME NUMBER- TO -DECIMAL NUMBER-EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT TO LEFT THROUGH -CUTPUT DATA-, MOVE 4-BIT DIGITS FROM LIST TO LOW ORDER 4 BITS OF POSITIONS 37 TO 34 IN -OUTPUT DATA-

MOVE -BRAILLE PAGE NUMBER- TO -DECIMAL NUMBER-EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM LIST TO LOW ORDER 4 BITS OF POSITIONS 47 TO 38 IN -OUTPUT DATA-

MOVE -BRAILLE LINE NUMBER- TO -DECIMAL NUMBER-EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT TO LEFT THROUGH -CUTPUT DATA-, MOVE 4-BIT DIGITS FROM LIST TO LOW ORDER 4 BITS OF POSITIONS 53 TO 50 IN -OUTPUT DATA-

MOVE -SOURCE NUMBER- TO -DECIMAL NUMBEREXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBERMOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -GUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 61 TO 56 IN
-OUTPUT DATA-

LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF 6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN BITS 5-10 OF POSITIONS 1 TO 7 IN -OUTPUT DATA-

INCREASE -BRAILLE CARD NUMBER- BY -INCREMENT FOR BRAILLE CARD NUMBER-

LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF
6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN LOW ORDER
6 BITS OF POSITIONS 1 TO 7 IN -OUTPUT DATAEXIT

ADD TO OUTPUT DATA IF FIRST POSITION IN -OUTPUT DATA- IS CLEARED, GO TO STEP B IF NEXT CODE TO BE ADDED TO OUTPUT IS -BRAILLE END CHARACTER-, GO TO STEP F MOVE NEXT CODE TO BE ADDED TO OUTPUT TO HIGH ORDER 12 BITS OF NEXT POSITION IN OUTPUT DATA INCREASE -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- BY LENGTH OF ONE BRAILLE CHARACTER INCREASE -LOCATION OF NEXT POSITION IN OUTPUT DATA- BY LENGTH OF ONE OUTPUT DATA POSITION IF -LOCATION OF NEXT POSITION IN OUTPUT DATA- IS LESS THAN LOCATION OF 72ND POSITION IN - OUTPUT DATA-, GO TO STEP B EXECUTE -END OUTPUT RECORD-. IF NEXT CODE TO BE ADDED TO OUTPUT IS -BRAILLE END CHARACTER-, GO TO STEP F STEP D EXECUTE -INSERT NUMBERS FOR BRAILLE CARD-MOVE LOCATION OF 8TH POSITION IN -OUTPUT DATA- TO -LOCATION OF NEXT POSITION IN OUTPUT DATA-GO TO STEP B STEP F, EXIT END OUTPUT RECORD IF FIRST POSITION IN -OUTPUT DATA- IS CLEARED, GO TO EXIT MOVE -END OF CARD CODE- TO HIGH ORDER 12 BITS OF NEXT POSITION IN OUTPUT DATA EXECUTE -WRITE OUTPUT-EXIT WRITE OUTPUT TRANSFER BRAILLE DATA FROM -OUTPUT DATA- TO OUTPUT RECORD WRITE DATA FROM OUTPUT RECORD TO OUTPUT FILE EXECUTE -CLEAR OUTPUT DATA-EXIT

TABLES

BRAILLE TABLE

THE BRAILLE TABLE CONTAINS ENTRIES FOR EACH INPUT CHARACTER OR CHARACTER SEQUENCE WHICH CAN BE TRANSLATED AS A UNIT. A TABLE ENTRY MAY HAVE SIX PARTS.

- 1. THE FIRST PART OF THE ENTRY CONTAINS ONE OR MORE INPUT TEXT CHARACTERS REPRESENTING AN INKPRINT CHARACTER, OR A SERIES OF INKPRINT CHARACTERS, OR A FORMAT CODE. THE CHARACTER OR CHARACTER SERIES IN THE ENTRY IS FOLLOWED BY A SPECIAL CHARACTER, NOT USED IN THE INPUT, WHICH HAS A GREATER LOGICAL VALUE THAN ANY INPUT CHARACTER. THE ENTRIES ARE STORED IN ASCENDING ORDER. IN THE CASE OF TWO ENTRIES BEGINNING WITH THE SAME CHARACTERS, THE SPECIAL CHARACTER CAUSES THE SHORTER ENTRY TO HAVE A HIGHER VALUE AND THEREFORE TO BE PRECEDED BY THE LONGER ENTRY. IN THE LISTING GIVEN BELOW, THE SPECIAL CHARACTER IS REPRESENTED BY A MINUS SIGN.
- 2. THE SECOND PART OF THE ENTRY IS A NUMBER INDICATING THE TYPE OF THE TRANSLATION UNIT VIEWED FROM THE LEFT.
- 3. NEXT THERE IS AN OPERATION NUMBER IDENTIFYING THE PROCEDURE REQUIRED TO TRANSLATE THE UNIT.
- 4. THE FOURTH PART OF THE BRAILLE TABLE ENTRY IS A NUMBER INDICATING THE TYPE OF THE TRANSLATION UNIT VIEWED FROM THE RIGHT. THE NUMBERS IN PARTS 2 AND 4 SIGNIFY
 - TYPE 1 LETTER
 - TYPE 2 BEGINNING PUNCTUATION
 - TYPE 3 ENDING PUNCTUATION
 - TYPE 4 COMPOSITION SIGN
 - TYPE 5 HYPHEN
 - TYPE 6 SPACE
 - TYPE 7 DASH
 - TYPE 8 APOSTROPHE
 - TYPE 10 BY INTO TO
 - TYPE 11 NUMBER
- 5. A CONTRACTION IDENTIFICATION NUMBER IS THE FIFTH PART OF THE ENTRY. THIS NUMBER CORRESPONDS TO A SECTION OF THE EXCEPTION TABLE.
 - 6. THE SIXTH PART OF THE ENTRY CONTAINS THE CODES FOR THE



BRAILLE EQUIVALENT OF THE INKPRINT CHARACTERS. AN ENDING CODE OF ALL ZEROS TERMINATES THIS PART OF THE ENTRY.

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HAVE-	01	02	01	79	06123	00000				_
HERE-	01	01	01	80	00120		00000	- 4		_
HER SELF-	01	01	01	81	00123	04173	00113	i	-	
HIMSELF-	01	01	01	83	12123		00113	00000		_
HIM-	01	02	01	82	10123		00000			_
HIS -	01	07	06	84	02146	02300	00000			
HIS -	01	16	06	00	14123			02300	00000	;
HM-	01	02	01	00	02123		02115	00.00	_	
H-	01	00	01	00	02123	00000				
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ITSELF-	01	09	01	86	02024			,	-	!
ITS-	01	01	01	91	08055		00000	i		
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JUST-	61	02	01	93	06132			•		- 1
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RECEIVING-
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                              00036 12115 00000
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                              02176 02300 00000
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TABLE OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE

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LOCATION OF FIRST BRAILLE TABLE ENTRY FOR U-
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1
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 2-
2
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 3-
3
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 4-
4
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 5-
5
          LOCATION OF FIRST BRAILLE TABLE ENTRY
6
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 7-
7
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 8-
8
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 9-
9
          LOCATION OF BRAILLE TABLE ENTRY FOR #-
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR a-
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          LOCATION OF BRAILLE TABLE ENTRY FOR &-
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          LOCATION OF BRAILLE TABLE ENTRY FOR
          LOCATION OF BRAILLE TABLE ENTRY FOR
В
          LOCATION OF BRAILLE TABLE ENTRY
C
          LOCATION OF BRAILLE TABLE ENTRY
                                           FOR
D
          LOCATION OF BRAILLE TABLE ENTRY FOR E-
E
          LOCATION OF BRAILLE TABLE ENTRY FOR F-
F
          LOCATION OF BRAILLE TABLE ENTRY FOR G-
G
          LOCATION OF BRAILLE TABLE ENTRY FOR H-
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          LOCATION OF BRAILLE TABLE ENTRY FOR I-
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          LOCATION OF BRAILLE TABLE ENTRY FOR
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п
          LOCATION OF BRAILLE TABLE ENTRY
                                           FOR J-
J
          LOCATION OF BRAILLE TABLE ENTRY FOR K-
K
          LOCATION OF BRAILLE TABLE ENTRY FOR
L
          LOCATION OF BRAILLE TABLE ENTRY FOR
M.
          LOCATION OF BRAILLE TABLE ENTRY FOR
N
          LOCATION OF BRAILLE TABLE ENTRY FOR
0
          LOCATION OF BRAILLE TABLE ENTRY FOR P-
          LOCATION OF BRAILLE TABLE ENTRY FOR Q-
          LOCATION OF BRAILLE TABLE ENTRY FOR R-
R
          LOCATION OF BRAILLE TABLE ENTRY FOR $-
          LOCATION OF BRAILLE TABLE ENTRY FOR
BLANK
          LOCATION OF BRAILLE TABLE ENTRY FOR SPACE
          LOCATION OF FIRST BRAILLE TABLE ENTRY FOR /-
          LOCATION OF BRAILLE TABLE ENTRY FOR S-
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T	LOCATION OF	BRAILLE TABLE	ENTRY	FOR T-	_
Ù	LOCATION OF	BRAILLE TABLE	ENTRY	FOR U-	*
v	LOCATION OF	BRAILLE TABLE	ENTRY	FOR V-	
W	LOCATION OF	BRAILLE TABLE	ENTRY	FOR W-	
X	LOCATION OF	BRAILLE TABLE	ENTRY	FOR X-	_
Ŷ	LOCATION OF	BRAILLE TABLE	ENTRY	FOR Y-	_
7.		BRAILLE TABLE			_
L	LOCATION OF	FIRST BRAILLE	TABLE	ENTRY FOR ,-	
7	LOCATION OF	BRAILLE TABLE	FNTRY	FOR %-	_
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EXCEPTION TABLE

THE EXCEPTION TABLE GOVERNS THE TRANSLATION OF CONTRACTION SEQUENCES IN UNUSUAL SITUATIONS. A CONTRACTION SEQUENCE IS DEFINED AS A LETTER SERIES WHICH IN BRAILLE SOMETIMES IS REPRESENTED BY A CONTRACTION. THE EXCEPTION TABLE IS DIVIDED INTO SECTIONS CORRESPONDING TO THE VARIOUS CONTRACTION SEQUENCES.

AN EXCEPTION TABLE ENTRY IS ESSENTIALLY A CONTEXT OF CHARACTERS WHICH AFFECTS CONTRACTION USAGE. A SECTION OF THE TABLE MAY HAVE TWO SUBSECTIONS. ONE SUBSECTION, CALLED THE PRECEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING CHARACTERS WHICH PRECEDE THE CONTRACTION SEQUENCE IN THE TEXT, OR WHICH PRECEDE AND FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT. THE OTHER SUBSECTION, CALLED THE SUCCEEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING ONLY CHARACTERS WHICH FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT.

A TABLE ENTRY IN A PRECEDING CHARACTERS SUBSECTION HAS FOUR PARTS.

- 1. A PLUS OR MINUS SIGN CHARACTER INDICATES THAT THE CONTRACTION IS TO BE USED OR NOT TO BE USED IN THIS CONTEXT.
- 2. AN ENTRY LENGTH FACTOR POINTS TO THE BEGINNING OF THE NEXT TABLE ENTRY.
- 3. ONE OR MORE CHARACTERS OF CONTEXT TO THE LEFT OF THE CONTRACTION SEQUENCE ARE GIVEN. THE ORDER IS THE REVERSE OF THAT IN THE INPUT IF MORE THAN ONE CHARACTER IS GIVEN, SO THAT THE CHARACTER CLOSEST TO THE CONTRACTION SEQUENCE OCCURS FIRST IN THE ENTRY. THIS PART OF THE ENTRY IS TERMINATED BY AN END MARK WHICH IS A SPECIAL CHARACTER, NOT USED IN THE INPUT, HAVING A GREATER LOGICAL VALUE THAN ANY INPUT CHARACTER.
- 4. CHARACTERS WHICH FOLLOW THE CONTRACTION SEQUENCE AND WHICH FORM PART OF THE CONTEXT ARE GIVEN NEXT. THIS PART OF THE ENTRY IS ALSO TERMINATED BY THE SPECIAL ENDING CHARACTER. IF THE ENTRY INCLUDES NO FOLLOWING CHARACTERS, THE END MARK IS STILL REQUIRED AND OCCURS IMMEDIATELY AFTER THE END MARK FOR PART 3.
- IN A SUCCEEDING CHARACTERS SUBSECTION OF THE EXCEPTION TABLE, EACH ENTRY HAS THREE PARTS.

- 1. A PLUS OR MINUS SIGN CHARACTER INDICATES THAT THE CONTRACTION IS TO BE USED OR NOT TO BE USED IN THIS CONTEXT.
- 2. AN ENTRY LENGTH FACTOR POINTS TO THE BEGINNING OF THE NEXT TABLE ENTRY.
- 3. ONE OR MORE CHARACTERS OF CONTEXT TO THE RIGHT OF THE CONTRACTION SEQUENCE ARE GIVEN. THIS PART OF THE ENTRY IS TERMINATED BY THE SPECIAL CHARACTER WHICH IS USED AS AN END MARK.

ENTRIES WITHIN EACH SUBSECTION ARE ARRANGED IN ASCENDING ORDER BY THE STRING OF CONTEXT CHARACTERS AND END MARK CHARACTERS. THE END OF A SUBSECTION IS INDICATED BY A SPECIAL ENTRY CONTAINING NO CONTEXT CHARACTERS AND HAVING AN ENTRY LENGTH FACTOR OF ZERO.

IN THE LISTING WHICH FOLLOWS, THE END MARK FOR A GROUP OF CONTEXT CHARACTERS IS REPRESENTED BY A MINUS SIGN.

THE SIGNIFICANCE OF THE TABLE MAY BE ILLUSTRATED BY A FEW EXAMPLES. THE ENTRY, MO9IHCA--, IN THE PRECEDING CHARACTERS SUBSECTION FOR THE CONTRACTION, EVER, CONTROLS THE TRANSLATION OF EVER IN THE SEQUENCE, ACHIEVER. THE ENTRY BEGINS WITH A MINUS INDICATING THAT THE EVER CONTRACTION IS NOT USED. IN THE PRECEDING CHARACTERS SUBSECTION FOR TH, THE ENTRY, M12ROHS-ORN-, INDICATES THAT TH IS NOT CONTRACTED IN SHORTHORN. THE ENTRY, M06ST-, IN THE SUCCEEDING CHARACTERS SUBSECTION FOR THE CONTRACTION, BE, MEANS THAT WHEN THIS CONTRACTION SEQUENCE IS FOLLOWED BY THE LETTERS, ST, AS IN BEST, BE IS NOT CONTRACTED. A PLUS ENTRY, PO7STR-, IN THE SAME SUBSECTION INDICATES THAT IN SUCH WORDS AS BESTREW AND BESTRIDE THE BE IS CONTRACTED.

ABOUT

SUCCEEDING CHARACTERS SUBSECTION

M05E- P00

ABO VE

SUCCEEDING CHARACTERS SUBSECTION MOSSAID- POO

ACROSS

PRECEDING CHARACTERS SUBSECTION MO7L-E- PO0

AFTER

PRECEDING CHARACTERS SUBSECTION MO6R-- POO

SUCCEEDING CHARACTERS SUBSECTION
MO9CLAIM- MO7EFF- MO8IMAG- MO6\$,- POO

AGAIN PRECEDING CHARACTERS SUBSECTION MOON-- POO

SUCCEEDING CHARACTERS SUBSECTION M05E- P00 ALLY PRECEDING CHARACTERS SUBSECTION MO7HS-- MO8IT\$-- PO7PI-- MO6P-- MO8UQS-- MO7,\$-- PO0 ALMOST PRECEDING CHARACTERS SUBSECTION MO8, \$Y-- POO ANCE PRECEDING CHARACTERS SUBSECTION MO7H\$-- PO9IFED-- PO8IFF-- MO7IF-- MO8IT\$-- MO7,\$-- PO0 AND PRECEDING CHARACTERS SUBSECTION MO7A\$-- M13P-EMONISM- M09V-YKE- P00 AR PRECEDING CHARACTERS SUBSECTION MO7A\$-- M12HAM-AJAH- M10P-ROCO- M09RFNI-- M09RTLU--M11RTNI-EG- M10TS-EEK- P00 SUCCEEDING CHARACTERS SUBSECTION MOBIGHT- MIOUNNING- POO PRECEDING CHARACTERS SUBSECTION M07,5-- P00 ATION . PRECEDING CHARACTERS SUBSECTION MO7,\$-- PO0 BB : PRECEDING CHARACTERS SUBSECTION M11MUD-ELL- M12URCS-IRD- M13URCS-DARD- M07US-- P00 SUCCEEDING CHARACTERS SUBSECTION MO7AND- MO6LE- PO0 PRECEDING CHARACTERS SUBSECTION BE M14aAaESODM-C- POO SUCCEEDING CHARACTERS SUBSECTION POTATA- POBATIF- POBATIT- POTATR- MOSA- MOTCCA- MOSCH-MOCK- MOCQ- POODA- POODECK- POTDEV- POTDEW- MOCDE-MO9DIVER- PO6DI- PO7DOG- PO9DRAGG- MO5D- PO8ELZE- MO5E-POGGA- POGGE- POGGI- POGGO- POGGR- POGGU- MOSG- MOGHM-MO6HN- MO6HR- MO7HSH- PO7ING- PO8IN\$,- MO5I- MO7KER-MOSKKUS- MOTLAF- MOSLAIR- POGLA- POGLE- POGLI- POGLD-PO9L\$AEN- PO8LUGA- PO6LY- MO5L- MO6MB- MO8MMEL- PO6NA-Plineficen- Pognesas- Pogney- Mognison- Pogni- Pogno-PO6NU- MO5N- PO6PA- PO6PE- PO6PI- PO8PUFF- MO5P- PO6RA-MO7REK- M10RELSON- MO7REN- MO7RES- MO9RETON- PO6RE-

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PORRIBB- PORRING- MOSR- MOSSNARD- MOSS- POTSTA- POSSTEAD-
MOSSTIA- MIISTIFICA- POTSTI- MOSSTON- POTSTO-, POTSTR-
POSTUDD- MOGST- POGTA- POTTEL- PIOTHESDA- MOTTHE- POTTHI-
PO7THO- PO6TI- PO6TO- PO6TR- PO6TW- MO5T- MO5U-
P12VILACQUA- MO5V- MO6WT- MO6XA- MO8XLEY- MO5Y- MO9ZANTS-
P00
BETWEEN
    SUCCEEDING CHARACTERS SUBSECTION
M05E- P00
BLE
    PRECEDING CHARACTERS SUBSECTION
MIOA-GATE- MOTNU-- MIOUEH-IN- POPUS-TT- MOBUS-T- MIOUS-VEL-
P00
     SUCCEEDING CHARACTERS SUBSECTION
MOGAU- MOGED- MOBMISH- MOGND- MOGSS- POO
BLIND
     SUCCEEDING CHARACTERS SUBSECTION
MO5A- MO5E- MO8HEIM- MO5I- MO8SPIN- POO
BY -
    PRECEDING CHARACTERS SUBSECTION
M12 DNA YB-- M07.5-- POO
     SUCCEEDING CHARACTERS SUBSECTION
MÓBAND - MOBARE - MOBBUT - NOBFOR - MOSFROM - MOTHE -
MO71F - MO71N - MO91NTO - MO71S - MO70F - MO70N - MO70R -
MOSSHE - MOSTHEY - MOSTO - MOSWHEN- MIOWHILE - MOSWITH-
P 0 0
CAN
     SUCCEEDING CHARACTERS SUBSECTION
MO7$,L- PO7$,S- MO8$,TC- PO7$,T- MO6$,- PO0
CC
     SUCCEEDING CHARACTERS SUBSECTION
M05H- P00
CH
     PRECEDING CHARACTER'S SUBSECTION
M1300HC S-NIE- M080-EN- M13S-00CHNIE- P00
CHALD
     SUCCEEDING CHARACTERS SUBSECTION
P07$,S- M06$,- P00
COM
     PRECEDING CHARACTERS SUBSECTION
M07#a-- M06a-- P00
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CON _ SUCCEEDING CHARACTERS SUBSECTION MO52- MO6AN- MO6AT- PO7CHA- PO7CHE- PO7CHI- PO7CHO-PO7CHU- MO6CH- PO6EL- PO7EST- MO5E- PO6IC- MC9IDIUM-P071FF- P071NG- M051- M05.- M05K- M07NED- P09NINGT-MO8NING- MO6N - MO70ID- MO6\$,- MO5 - PO6SA- PO6SC- PO6SE-PO6SI- PO6SO- PO6SP- PO6ST- PO6SU- MO5S- MO6T.- MO6UN-M05Y- M05,- P00 DAY PRECEDING CHARACTERS SUBSECTION MO9AHW-A- MO9DUW-A- POO SUCCEEDING CHARACTERS SUBSECTION MOGAK- MOGAN- POO DD PRECEDING CHARACTERS SUBSECTION MO8AEH-- MO9IM-AY- M12OG-AUGHT- M12ROON-ORP- PO0 SUCCEEDING CHARACTERS SUBSECTION MO7AMN- POO DIS SUCCEEDING CHARACTERS SUBSECTION MO5a- PO6CA- PO6CE- PO6CH- PO6CI- PO6CL- PO6CR-PO6CU- MO5C- PO6HA- PO9HEART- PO6HO- MO5H- PO7ING- MO5K-MO9PIRIT- MO5\$- MO5 - MO8ULPH- PO0 PRECEDING CHARACTERS SUBSECTION MO8AR-N- MO7A\$-- MO6A-- M11CUED-CE- M14DAERPS-GLE-P11DI-LOGI- M10D-CTIV- M12FEEB-TER- M12GNARO-DE-M12HTDM-TEN- M09HT-ST- M11KAEPS-S- P09LC-GE- P11LEM-GER-P13LO-GINDUS- M08L-GE- M10,MIL-DE- M11NAM-TER- ,M13NELG-GLES-POSNUJ-U- MOTNU-- POSRA-N- PIORA-WAY- PIIRB-DMAN- POSRC-NT-M13REHTE-LLY- M10REVU-G- M10REVU-T- P07RE--P08RG-N-POGRG-VE- POGRO-N- PIORPIL-D- POGRPS-- POGRP-CH- PIORP-GER-P12RP-KNESS- MO7RP-- P08RT-C- P12RI-DMILL- P12RUCIPE-V-P11RYPME-N- P08R-CH- M10R-DAPT- P10R-DDDY- M08R-DD-MOSR-DJ- MOSR-DM- POTR-D- POSR-GA- POTR-K- MIOR-LIGN-MOGR-LIN- MOGR-LLY- POTR-L- POTR-M- POBR-NS- MOGR-PP-POTR-P- MILR-SCEND- MOBR-SS- POTR-S- MIOR-TION- MIOR-TTAC-POTR-T- POTR-U- POTR-V- POTR-Y- MO6R-- M13SOPSID-LL-M13STRAEH-SE- M09SU-GE- P09S-WAY- M11TNA-TER- P10T-R00M-M11XAT-TER- P09Y-GER- P00 SUCCEEDING CHARACTERS SUBSECTION M10BILITY- M07BLE- M07BLY- M07CRE- M07LLY- 'M08LOGI-' MOSLOGY- MOTNCE- MOGND- MOSPPLE- MOSR- MOSTION- MOTWAY-M05X- P00 į PRECEDING CHARACTERS SUBSECTION POSAHA-- PIOANNEH-- POSARAC-- MOZAS-- MOGA-- PI4CAL-AEMONI-P13CETNA-ANT- P10CREC-A- M12CUAS-ISH- P08C-AR- P07C-U-PO7D- - MO7D-U- MO9ED-EE- M11ENK-EEP- P10\(\tilde{C}PS-OM- M07E-O-

PO6E-- PO3HCS-- PO9H-ONI- PO7H- - MO9IP-OG- PO9IRF-A-MIZKS-ADDLE- POTK- - MIOLGGI-Y- MISLTTAB-ORE- POTL-A-PO7L- - M11MOC-OWN- PO6M-- PO9NAH-A- P12NATSAC-A-M13NEB-ICITE- M12NIP-ROPS- PO7N- - M11CS-TMAN- M070-E-MO70-I- PO9PEC-A- P11PROT-OM- P09P-AGO- P08P-AN- P10P-ITIO-P11P-UNCLE- P10RACS-A- M12RAD-EVIL- P08RA-O- P08RB-E-PO9RB-ON- PO8RC-O- PO8RC-U- P12REVO-UCA- P10RFLA-O-PORF-A- PORF-ER- PIIRF-ONIA- PORG-OS- MIIRIA-ALE-P13RIEUGIF-O- M12RIW-RAWN- P08RI-E- P08RO-A- P12RP#-MORE-POGRPED-- PIIRP-ATOR- PI4RP-ECESSOR- PIIRP-ICAT- MO7RP--MITRI-ENT- POSRCOC-- POSR-AL- MOTR-A- POSR-EN- POSR-ER-POR-EST- POR-EYE- MOTR-E- MORR-ID- MORR-IR- MORR-IS-M1CR-ITCH- M11R-IVERT- MO9R-IVI- PO7R-.- P1OR-OLEN-P1CR-ONDO- MO7R-O- MO9R-RAW- M1OR-RESS- MO9R-REW- PO7R--MO7R-U- PO9SEW-A- M11SON-IVE- M11SOR-ALE- M10SROH-R-M09S-EAL- PC9S-AKA- PO8S-AN- P11S-ATIVE- P07S- - P08S-UL-M10TNA-AT- M09TNA-I- P07T- - P07T- - M12VARG-IGG-M11VOD-ALE- P12VON-ADES- M10V-WELL- P09V-ADO- P08V-AS- P00 SUCCEEDING CHARACTERS SUBSECTION POGAL- POGAM- MOSANCER- MOSA- MOSEP- POGEN- MOSICT-MOSITIO- POGIT- MOGOM- MOTOOM- MOTOVE- MOTOWN- MOSREAM-MOBRESS- MOTROP- MOTRUM- POBUARD- POTUCA- MOSU- POO

EN

PRECEDING CHARACTERS SUBSECTION MO7a-a- PO9ARAP-- MO7A\$-- MO6A-- P13DBYLOM-UM- MO3D-AT-MO8D-DM- MO8D-OT- PO9D-UDA- MO7D-U- PO6E--- PO6H--M12KIPS-ARD- M12LGNI-COK- M13LTTIL-ECK- M10LTTOB--M14MHCS-DRICK- P140IB-GINEER- P080RT-- P140TOHP-GRAV- M060--MIIRDF-OON- MORRP-A- MORRP-U- PORR-AL- MORR-AM- MOOR-ASC-MO9R-EGE- MO9R-EGI- MO9R-EGO- M12R-ETTING- MO8R-EW-MORR-OM- MORR-OW- MOSTNA-A- MISTNA-UPTIAL- MITULB-OSE-P13ZITIC-ESS- P00

SUCCEEDING CHARACTERS SUBSECTION MOSOLAI- MOTAIL- POSAMEL- MOTAME- MOTECK- MOTESS- MOTOCH-MO70RM- MO80RTH- MOSOUNC- MOSUMER- MOSUNCI- POO

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PRECEDING CHARACTERS SUBSECTION MO7H\$-- MO8IT\$-- MO8MEK-- M11MELC-AU- M13ORTCELE-P-M14SEM-PHALEN- M07,5-- P00

ER

PRECEDING CHARACTERS SUBSECTION P10AL-TES- M07A\$-- M06A-- M12CIV-EGAL- M10CIV-EI- M10CIV-OY-M12DRAG-OBE- M13D-ACINATE- MO9D-AIL- MO9D-ANG- MO8D-ID-MO9D-ISI- P13D-IVATION- MO8D-IV- M12FIWDIM-Y- M10GAMI-Y-M12GATS-OAD- M11GAVAS-Y- M11GDEH-OW- P14GINNIM-ODE- ' M13GNAR-IDER- P06H-- M11KAW-IFE- P10LCS-OT- M10LFIR-Y-M12LGAE-GCK- P11MA-ASIA- M10MOH-UN- M12NI-ASABL-M12NU-ASABL- P080C-C- M080D-R- P070D-- M100G-ING- P070G-- P0700-- M060-- P08P-AD- P09P-0SI- M11RAPS-IB-P17REPUS-OGATORY- MIORP-AIL- MORRP-E- MORRP-O- MIOR-AISE-MORR-AN- MOOR-EAD- MOOR-OLL- MOOR-OUT- MOOR-UN- PIOSORD-A-

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P12SORP-PIN- MO8SOR-- MO9SROH-- MO9T-00M- P06T-- P07J-A-
  PO6V-- M11YE-ANGE- POO
       SUCCEEDING CHARACTERS SUBSECTION
 MOGAD- MOTASE- MOTASI- MOGASMUS- MOTASU- POSECHT- MOTECT- MOTODE- MOTODI- MILOGATORY- PILOGENOUS- MOTOGE- POGOICAL- MOSDICA- MOTOOM- MOTOOT- POSOSIS- POGOSITY- MOTOSI-
  M070TO- M10$HR$HR- M07UPT- P00
  EV₩₹
  _ PRECEDING CHARACTERS SUBSECTION
 MO7A$-- PO9D-EUX- MO7D-E- MO8EHC-- MO7EK-- MO6F-- MO9HCE-R-
MO9IHCA-- MO8IHT-- MO7IL-- MO7IR-- MO7IS-- MO8K-NE-
PO7L-S- MO9NIUG-- MO7RG-- MO7R-B- PO8R-EN- MO7R-E- MO7R-S-
MO7R-T- MO9SREP-- PO8S-ED- MO7S-E- PO9S-ING- MO7S-I-
MO9S-SDN- PO7S-S- MO8S-US- MI1TNOM-DI- PO0
        SUCCEEDING CHARACTERS SUBSECTION
 P06SH- P07SON- M05S- P06TH- M05T- P00
 FATHER
       PRECEDING CHARACTERS SUBSECTION
 MÜ6F-- POQ
 FF
        SUCCEEDING CHARACTERS SUBSECTION
 MOSATHER- MOGOR- MOGUL- POO
 FIRST -- --
       SUCCEEDING CHARACTERS SUBSECTION
 MO8LING- POO
 FOR
       PRECEDING CHARACTERS SUBSECTION
 M09ES-IM- P00
 FR I END
       SUCCEEDING CHARACTERS SUBSECTION
 M05E- M05I- P00
 FUL
       PRECEDING CHARACTERS SUBSECTION
 MO7H$-- MO8IT$-- M12REVO-FIL- MO7,$-- PO0
       SUCCEEDING CHARACTERS SUBSECTION
 MOSFILL- POOLE- POOLY- MOSL- POO
       PRECEDING CHARACTERS SUBSECTION
 MOSNI-IT- MIOOD-ONE- MOSROB-R- POO
 GH
 PRECEDING CHARACTERS SUBSECTION
MITAL S-EAP- MIZATS-OUND- MITNAHS-AI- MITNUB-OLE- MITNUD-ILL-
 M100C-ILL- P120EL-AIRE- M12RUB-ARDT- P09U A-AM- M12ULP-ORSE-
_ P_00
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SUCCEEDING CHARACTERS SUBSECTION MO7AIR- MO6AM- MO7EAD- MO8EART- MO7ORN- MO8OUSE- MO7UNT-**P0**0 GOOD PRECEDING CHARACTERS SUBSECTION MOS#-ALL- MOSLLIH-- MIONIVIL-- MIOG-NIKS- MOSPAH-- MOSREVE--MOGRUHT-- MOTSO-- M12YRD-SMAN- POO SUCCEEDING CHARACTERS SUBSECTION MOBARZI- MOBBODY- MOCH- POGER- MOSE- MICH LOW- MOSHART-MOTHEW- MOTHUE- MOTING- MOTMAN- MOGOL- MORRICH- MOTSON-MOSSPEED- MOSWIFE- MIOWILLIE- MOTWIN- MOSWOOD- MOSYEAR-P00 GREAT SUCCEEDING CHARACTERS SUBSECTION POGEN- POGER- POTEST- MOSE- PITHEARTED- MOSHEART- POO DAH PRECEDING CHARACTERS SUBSECTION MO8#-AD- MO7#-Y- MO9AB-UR- MO9AM-ED- MO9AN-ED- MO7AP--MO7IJ-- MO7K-I- MIOPAS-IN- POO SUCCEEDING CHARACTERS SUBSECTION MOSASSAH- POBDEST- MOSD- MOSEN- MOSES- MIORAMAUT- MOSRIAN-P00 HERE PRECEDING CHARACTERS SUBSECTION M12#, \$L-AUX- MOBNI-N- PO7NI-- MO7PS-- PO0 SUCCEEDING CHARACTERS SUBSECTION MO5D- MO8FORD- MO5N- MO5R- MO6SI- MO6SY- MO6TI- PO0 HER SELF SUCCEEDING CHARACTERS SUBSECTION M05E- P00 HIMSELF SUCCEEDING CHARACTERS SUBSECTION M05E- P00 IN PRECEDING CHARACTERS SUBSECTION MO7A\$-- MO9EB-\$,- M12MES-OMAD- P11MOCO-\$,- M10MOC-\$,-MO9MOC- - M15TNA-ATIONAL- M10TNA-AZ- M13TNA-UDIST-M13TNA-UTRIT- M13UQE-OCTIA- M10UCE-OX- POO SUCCEEDING CHARACTERS SUBSECTION P13ESSENTIAL- MOTESS- MOBODAL- MOSOMIAL- POO ING PRECEDING CHARACTERS SUBSECTION

PRECEDING CHARACTERS SUBSECTION

MO7A\$-- M10AV-LOR- M10D-HIES- M08D-HY- M11EHR-OLDM10ER-OLD- M10L-ERIE- M09NEM-I- M14NESOR-RAVE- M10NU-RATP10R-HORN- M11SID-ENU- M11VIL-OOD- M09W-ATE- P00

SUCCEEDING CHARACTERS SUBSECTION _ MOTALE- MOSLASS- MOTRAD- MOTRAT- POO INTO -SUCCEEDING CHARACTERS SUBSECTION MO7AS - _ MO7BY - MO8FOR - MO9FROM - MO7IF - MO7IS - MO7OF -MO70N - MO70R - MO7TO - MO8WITH- PO0 ___ _ IT PRECEDING CHARACTERS SUBSECTION _ M07,5-- P00 SUCCEEDING CHARACTERS SUBSECTION P07\$,D- P08\$,LL- P07\$,S- M06\$,- P00 ITSELF SUCCEEDING CHARACTERS SUBSECTION _ M05E- P00 ITY PRECEDING CHARACTERS SUBSECTION _ MO60-- M13TNA-PHOID- M08URF-- M07,\$-- POO___ JUST SUCCEEDING CHARACTERS SUBSECTION MO8\$, VE- PO0 KNOW PRECEDING CHARACTERS SUBSECTION MO9CUL#-- PO0 LESS PRECEDING CHARACTERS SUBSECTION MO7H\$-- MO8IT\$-- MO9NU-CN- MO7,\$-- PO0 LETTER PRECEDING CHARACTERS SUBSECTION M10D0DLB-- M1GHCS-ER- M08NIF-- P00 SUCCEEDING CHARACTERS SUBSECTION P06ED- P06ER- M05E- M07MAN- P00 LIKE SUCCEEDING CHARACTERS SUBSECTION M06\$,- P00 _ _ - -LITTLE PRECEDING CHARACTERS SUBSECTION M10#-BURN- M060-- P00 SUCCEEDING CHARACTERS SUBSECTION MO9BERRY- MO9FIELD- MO9HALES- MO8JOHN- MO8NECK- MO8PAGE-MO7TON-_ MO8WOOD- MO9WORTH- POO LORD PRECEDING CHARACTERS SUBSECTION M12EHCAB-DM- POO

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MEN T
    PRECEDING CHARACTERS SUBSECTION
MO7H$-- MO8IT$-- M11ULB-HAL- MO7, $-- PO0
    SUCCEEDING CHARACTERS SUBSECTION
M0710N- P00
MORE
    SUCCEEDING CHARACTERS SUBSECTION
MO8$,LL- MO6$,- PO0
MOTHER - -
    PRECEDING CHARACTERS SUBSECTION
M11EHC-APY- POO
MUCH
 PRECEDING CHARACTERS SUBSECTION
M10ET#-IN- P00
    SUCCEEDING CHARACTERS SUBSECTION
MO5A- MO5B- MO50- POO
MUST
    SUCCEEDING CHARACTERS SUBSECTION
MO5A- MO5E- MO5I- MO5Y- POO
MYSELF.
    SUCCEEDING CHARACTERS SUBSECTION
M05E- P00
NAME
    PRECEDING CHARACTERS SUBSECTION
MO7#-H- MO7E-L- M11TEIV-SE- M07U-N-
                                      P00
     SUCCEEDING CHARACTERS SUBSECTION
MO7CAN- MO6NT- POO
NESS
     PRECEDING CHARACTERS SUBSECTION
MO7H$-- MO8IT$-- M110N-ENTI- M12U-ENTIAL- M07,$-- PO0
NOT
     SUCCEEDING CHARACTERS SUBSECTION
M06$,- P00
OF
     PRECEDING CHARACTERS SUBSECTION
MO7A$-- M11BIR-LAV- M15DUESP-ATHER- M09RCIM-- M09RDYH--
M12ROHT-ARE- M08RP-A- M08RP-E- P09RP-IT- M08RP-I- M08RP-O-
MORRP-U- MIORTER-L- MORS-AR- MOSTOHP-- MIZTSIRC-OR-
MIOWT-OLD- MO8W-UL- POO
     SUCCEEDING CHARACTERS SUBSECTION
MOSIELD- MCGOR- POO
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ONE PRECEDING CHARACTERS SUBSECTION MO7#-G- MO7A\$-- MO7B-Y- MO8CIP-- M10CLAB-S- M09CRAM--M10C-CTEC- M07C-Y- M12DRANREB-- P07D-L- M09GIRE--M10GITNA-- MC9HAM-Y- M10HCTUT-- M13HCYSP-URO- M09HED-Y-M12HPESREP-- M12HPSEREP-- M10HP-MIC- M08HP-Y- M10HSOHS--M10H-GGER- M11IHCCAC-- M13ILGITSAC-- M10IMREH-- M10IMRIS--MO9INU#-- M10IPICS-- M09IREM-- M09I-SCO- M10K-FSKY MO9LABA-- M11LICIPI-- M13LLEAFFAR-- M11LOC#-US- M09LOIV--M11LOVORP-- POBL-LY- MO7L-Y- M09MENA-- M11MMOC-ST-MILMYS-NKO- PO9M-TAR- PO8M-TI- MIONAK-NS- MILNASIUQ--M13N-CONOMIC- M12N-LASTIC- M09N-LEC- M12N-MOTION-MI3N-MPLOYEE- MO7N-X- MO60-- MI2RAMAM-CK- MIORECIC--MITREHCAM-- MIOREV-ZI- MOTRK-- MIORNOM-Y- MOGROM-Y-MORRE-- MIORTAP-S- MIZRTSENIM-- MIORUBIT-- MIZRUELP-CT-M14SREHC #- SUS- M11TNE MAL-- M09TORP-- M11TT IAT-N- M09YCLA--M10YKNIK-- M08Y-ZO- P00 SUCCEEDING CHARACTERS SUBSECTION MOSA- MOSD- MOSE- POTITE- MOSI- POBLESS- POGLI- MOSL-MO6NT- MO5R- POTSES- MO6SE- MO7SIA- MO6SS- PO7THE-POSTIME- MOST- MOGUM- POO DNG PRECEDING CHARACTERS SUBSECTION M11CED-EST- M10CNI-RU- M11CNU-ENI- M13DDAHS-ATE- M07H\$--MOSITS-- M10M-DOSE- M100M-LOW- M090-LIT- M07, \$-- P00_ บน PRECEDING CHARACTERS SUBSECTION MO7A\$-- POO DUGHT PRECEDING CHARACTERS SUBSECTION MO8D#-Y- PO0 SUCCEEDING CHARACTERS SUBSECTION M060N- P.00 DUND PRECEDING CHARACTERS SUBSECTION MO7H\$-- MO8IT\$-- MO7,\$-- POO DUNT PRECEDING CHARACTERS SUBSECTION MO7H\$-- MOSIT\$-- MO7,\$-- POO DUT SUCCEEDING CHARACTERS SUBSECTION M06\$,- P00 OM PRECEDING CHARACTERS SUBSECTION MO7A\$-- M11COL-EED- M12HTRO-IFE- M10LIK-AT- M08N-AY-

P00

MO9N-HAR- MION-HERE- MO9N-ISE- MI2RCIM-AVE-

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SUCCEEDING CHARACTERS SUBSECTION
MO70RK-_ P00
PART
    PRECEDING CHARACTERS SUBSECTION
M09S#-AK- P07S-A- P00
     SUCCEEDING CHARACTERS SUBSECTION
MO5A- MO6CH- MO8ERRE- PO8HEID- MO6HE- MO7HIA- MO7DOK- PO0
PEOPLE
     SUCCEEDING CHARACTERS SUBSECTION
PO7$,S- MO6$,- PO0
SAID
    PRECEDING CHARACTERS SUBSECTION
MI OE VOBA-- POO
    SUCCEEDING CHARACTERS SUBSECTION
M05E- M05Y- P00
    PRECEDING CHARACTERS SUBSECTION
P10#-OUSE- M11BOC-ORN- M12HCAD-UND- M11IHC-OLM- PO8IMA--
POSIME-- POSIMC-- POSIMR-- P11IM-MASH- P09IM-NA-
Ploim-ong- MO7IM-- M12IRHC-OLM- M08I-AM- M11MAR-ORN-
MOSSAB-- MOSSALG-- MOSSARG-- MIOSA-OLE- MOSSORC-- POSS-IP-
M12TRAH-ORN- POO
     SUCCEEDING CHARACTERS SUBSECTION
MOTART- MOTAWK- MOTEAD- MOSEART- MOTOOD-
MOSORSE- MOSOUND- MOSOUSE- POO
SHOULD
     SUCCEEDING CHARACTERS SUBSECTION
M06ER- P00
SION
     PRECEDING CHARACTERS SUBSECTION
MO7H$-- MO8IT$-- MO7,$-- PO0
     SUCCEEDING CHARACTERS SUBSECTION
P07$, S- M06$,- P00
 SOME
     PRECEDING CHARACTERS SUBSECTION
Plodnah-R- M101-TRIC- M10.0MORH-- M100NAPY-- POBSIL-- M06S--
P 00
     SUCCEEDING CHARACTERS SUBSECTION
PO7DAY- MO5D- MO5R- MO7TER- MO7TRY- POO
ST
     PRECEDING CHARACTERS SUBSECTION
MO7#-a- MO7#- - POBAE-H- M11AG-IGHT- M10AM-IDE- M12EDNUB-AG-
P13EIRP-HOOD- P09ERC-H- P10E-HOLE- P09E-IME- M12HCIER-AG-
MO9IDNI -- P10IDNUB-- M09IDNU-- M10IDTUO-- P09ID-IC-
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MOSID-I- MOSID-R- M10ID-URB- PO9IM-AH- MOSIM-A- M11IM-EACH-M10IM-ERM- M10IM-ITL- M10IM-OOK- P10IM-RAL- P11IM-RESS-PO9IM-RY- MO8IM-R- M11NIAP-AK- PO8OP-H- M13OTUA-RADE-MO9SARG-- MO9SORC-- POO SUCCEEDING CHARACTERS SUBSECTION POSHEAD- POSHOUSE- PIOHUMOUS- MOSH- MOTIME- MOTION-M070WN- P00 STILL SUCCEEDING CHARACTERS SUBSECTION P07\$,S- M06\$,- P00 TH PRECEDING CHARACTERS SUBSECTION MO8#-\$,- P12AC-ARTIC- M11AC-OUND- M10AHC-AM- M11AOB-OOK-M11ADG-ERD- M11ADG-IDE- M11ARTS-AM- PO8A-OL- M11ERTS-AM-M13FUT-UNTER- M13HGIL-OUSE- M09HGIN-- M10LA-ORN- M11NAL-ORN-MIONA-EAP- MIZNILF-ARD- MIIOH-OUSE- MIZOLC-ILDA- MIIOOB-EEL-M1100F-0LD- M100P-ERB- M12CP-0LDER- M100P-00K- M090T-AM-M10RAW-0G- M12ROHS-ORN- M12ROPS-AUS- M08 -\$,- M12SEP-DUSE-M09S-EAD- P06S-- M11T0G-OLD- M11UN-ATCH- M10UO-ELD- P00 SUCCEEDING CHARACTERS SUBSECTION MOTAND- MOTART- MOTEAD- MOSEART- MOTERD- MOTILL-PlooLEPIN- MOTOLE- MOTOOD- POSORSEN- MOSORSE- MOSOUSE- POO THAT SUCCEEDING CHARACTERS SUBSECTION P07\$,D- P08\$,LL- P07\$,S- M06\$,- P00 THE PRECEDING CHARACTERS SUBSECTION MO9NA-AP- MO9OP-RB- PO6S-- MO9UO-LD- PO0 SUCCEEDING CHARACTERS SUBSECTION MOGAD- MOTART- MOTAST- MOGES- MOGILUNG- MOTNCE-MO6RD- MO6TT- PO0 THERE PRECEDING CHARACTERS SUBSECTION MIOAEL-RS- MO7AG-- MO9ERB-N- MO6E-- MO8IC-A- M11IMS-ENS-SUCCEEDING CHARACTERS SUBSECTION MO5D- MO6SA- MO6SE- MO6TT- PO0 THESE SUCCEEDING CHARACTERS SUBSECTION M05S- M06US- P00 THIS SUCCEEDING CHARACTERS SUBSECTION TIME PRECEDING CHARACTERS SUBSECTION MOBAL-R- MIOLA-TER- MOBNEC-- MOTPO-- MOTROM-R- MOTSE--

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SUCCEEDING CHARACTERS SUBSECTION MO7HRI- MO6NT- PO0

TION

PRECEDING CHARACTERS SUBSECTION
MO8AH\$-- MO9AIT\$-- MO7H\$-- MO8IT\$-- PO0

TO -

SUCCEEDING CHARACTERS SUBSECTION

MO7#I - MO8AND - MO8ARE - MO7AS - MO8BUT - MO7BY - MO8FOR
MO9FROM - MO7HE - MO7IF - MO7IN - MO7IS - MO7OF - MO8ONCE
MO7ON - MO7OR - M10SEEMED- MO8SHE - MO9THEY - MO8TOO
MO7TO - MO9WHEN - MO9WITH - PO0

TO aday

PRECEDING CHARACTERS SUBSECTION MO9ayAD-- POO

UNDER

PRECEDING CHARACTERS SUBSECTION

MO6A-- MO9W-BAR- M11W-KAMER- POO

SUCCEEDING CHARACTERS SUBSECTION

MO6IV- MO6OG- POO

UPON

PRECEDING CHARACTERS SUBSECTION
MO7AY-- M10D-CHEL- M07D-T- M07OC-- P00

US

SUCCEEDING CHARACTERS SUBSECTION MO8\$, LL- PO0

WH

PRECEDING CHARACTERS SUBSECTION
MO7AR-- M11AS-ORSE- M11EN-ATCH- M11EN-AVEN- M11EN-OUSEM12ERB-OUSE- POO
SUCCEEDING CHARACTERS SUBSECTION
M07ERD- M07IDE- POO

WHERE

SUCCEEDING CHARACTERS SUBSECTION MC7VER- PC0

WHICH

SUCCEEDING CHARACTERS SUBSECTION MO8\$, LL- PO0

WHO SE

SUCCEEDING CHARACTERS SUBSECTION MO7VER- POO

WILL

SUCCEEDING CHARACTERS SUBSECTION
P.075 • S- M.065 •- P.00



WORD PRECEDING CHARACTERS SUBSECTION PO9SSAP-- P10SSORC-- M06S-- P00 SUCCEEDING CHARACTERS SUBSECTION M06EN- P00 WORK PRECEDING CHARACTERS SUBSECTION M09AY-SI- M07EW-- P00 YOU PRECEDING CHARACTERS SUBSECTION M08,\$D-- P00 SUCCEEDING CHARACTERS SUBSECTION P07\$,D- P08\$,LL- P08\$,RE- P08\$,VE- M06\$,- P00 AND -SUCCEEDING CHARACTERS SUBSECTION MO6A - MO8FOR - MO7OF - MO8THE - MO9WITH - POO FOR -SUCCEEDING CHARACTERS SUBSECTION MO6A - MO7OF - MO8THE - MO9WITH - PO0 0**F** -SUCCEEDING CHARACTERS SUBSECTION MO6A - MO8THE - POO WITH -SUCCEEDING CHARACTERS SUBSECTION MO6A - MO8THE - POO

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001	ZERO LOCATION LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ABOUT
002	ZERO LOCATION LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	A BOVE
003	ZERO LOCATION	
004	ZERO LOCATION LOCATION OF PRECEDING CHARACTERS SUBSECTION	ACROSS
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005	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AFTER
006	ZERO LOCATION ZERO LOCATION	
007	ZERO LOCATION	
	ZERO LOCATION	- , `

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012	ZERO LOCATION	
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013	ZERO LOCATION	
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014	ZERO LOCATION	
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015	ZERO LOCATION	
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016	ZERO LOCATION	
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019	LOCATION OF PRECEDING CHARACTERS SUBSECTION	AR
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022	LOCATION OF PRECEDING CHARACTERS SUBSECTION	вв
022	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	88
022	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BE
023	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	, BE
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024	ZERO LOCATION	
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026	ZERO LOCATION	
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	ZERO LOCATION	-
032	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BLE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BLE
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039	ZERO LOCATION LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CC
040	LOCATION OF PRECEDING CHARACTERS SUBSECTION ZERO LOCATION	СН
041	ZERO LOCATION ZERO LOCATION	
042	ZERO LOCATION LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CHILD
043	ZERO LOCATION ZERO LOCATION	COM
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047	ZERO LOCATION ZERO LOCATION	
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064	LOCATION OF PRECEDING CHARACTERS SUBSECTION	EV ER
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065	ZERO LOCATION	LAEK
003	ZERO LOCATION	
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067	ZERO LOCATION	•
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068	ZERO LOCATION	FF
000	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FIRST
069	LOCATION OF PRECEDING CHARACTERS SUBSECTION	FOR
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071	ZERO LOCATION	LUICIO
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072	LOCATION OF PRECEDING CHARACTERS SUBSECTION	FUL
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FUL
073	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GG
	ZERO LOCATION	GG
C74	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GH
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075	ZERO LOCATION	GFI
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076	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GOOD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	G00D
077	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	GREAT
078	LOCATION OF PRECEDING CHARACTERS SUBSECTION	HAD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	HAD
079	ZERO LOCATION	'IAO
	ZERO LOCATION	
080	LOCATION OF PRECEDING CHARACTERS SUBSECTION	HERE
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082	ZERO LOCATION	
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083	ZERO LOCATION	
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084	ZERO LOCATION	
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085	ZERO LOCATION	
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086	LOCATION OF PRECEDING CHARACTERS SUBSECTION	IN
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	IN
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094	LOCATION OF PRECEDING CHARACTERS SUBSECTION	KNOW
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095	ZERO LOCATION	
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096	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LESS
	ZERO LOCATION	
097	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LETTER
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	LETTER
098	ZERO LOCATION	LLITER
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099	LOCATION OF PRECEDING CHARACTERS SUBSECTION	
0,,	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	LITTLE
100	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LITTLE
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101	ZERO LOCATION	
101	ZERO LOCATION	
100	ZERO LOCATION	
102	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MENT
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MENT
103	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MORE
104	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MOTHER
	ZERO LOCATION	
105	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MUCH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MUCH
106	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MUST
107	ZERO LOCATION	(1051
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MYSELF
108	LOCATION OF PRECEDING CHARACTERS SUBSECTION	
100	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	NAME
109	ZERO LOCATION	NAME
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110	ZERO LOCATION	
110	ZERO LOCATION	
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111	LOCATION OF PRECEDING CHARACTERS SUBSECTION	NESS
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112	ZERO LOCATION	
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113	ZERO LOCATION	
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114	LOCATION OF PRECEDING CHARACTERS SUBSECTION	0 F
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115	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ONE
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116	ZERO LOCATION ZERO LOCATION	
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118	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OU
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119	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OUGHT
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	DUGHT
120	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OUND
121	ZERO LOCATION	OHAIT
121	LOCATION OF PRECEDING CHARACTERS SUBSECTION ZERO LOCATION	DUNT
122	ZERO LOCATION	
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123	ZERO LOCATION	
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124	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OW
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125	ZERO LOCATION	
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126	LOCATION OF PRECEDING CHARACTERS SUBSECTION	PART
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127	ZERO LOCATION	8 5081.5
128	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ZERO LOCATION	PEOPLE
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145	ZERO LOCATION	
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146	LOCATION OF PRECEDING CHARACTERS SUBSECTION	SOME
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147	ZERO LOCATION	
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148	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ST
149	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ZERO LOCATION	ST
149	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	STILL
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154	ZERO LOCATION	
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170	ZERO LOCATION	
171	ZERO LOCATION ZERO LOCATION	
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172	LOCATION OF PRECEDING CHARACTERS SUBSECTION	UNDER
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173		UPON
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174	ZERO LOCATION	
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175	ZERO LOCATION	
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176	ZERO LOCATION	
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177	ZERO LOCATION ZERO LOCATION	
178	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WH
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179	ZERO LOCATION	M Fi
113	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WHERE
180	ZERO LOCATION	WIIENE
100	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WHICH
181	ZERO LOCATION	***************************************
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182	ZERO LOCATION	
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183	ZERO LOCATION	
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184	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WORD
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185	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WORK
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186	ZERO LOCATION	
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187	ZERO LOCATION	
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188	LOCATION OF PRECEDING CHARACTERS SUBSECTION	YOU
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189	ZERO LOCATION ZERO LOCATION	
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192	ZERO LOCATION	
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194	ZERO LOCATION	
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195	ZERO LOCATION	
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196	ZERO LOCATION	
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6	101	000
7	100	100
8	100	010
9	100	001

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7	1000	0100
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